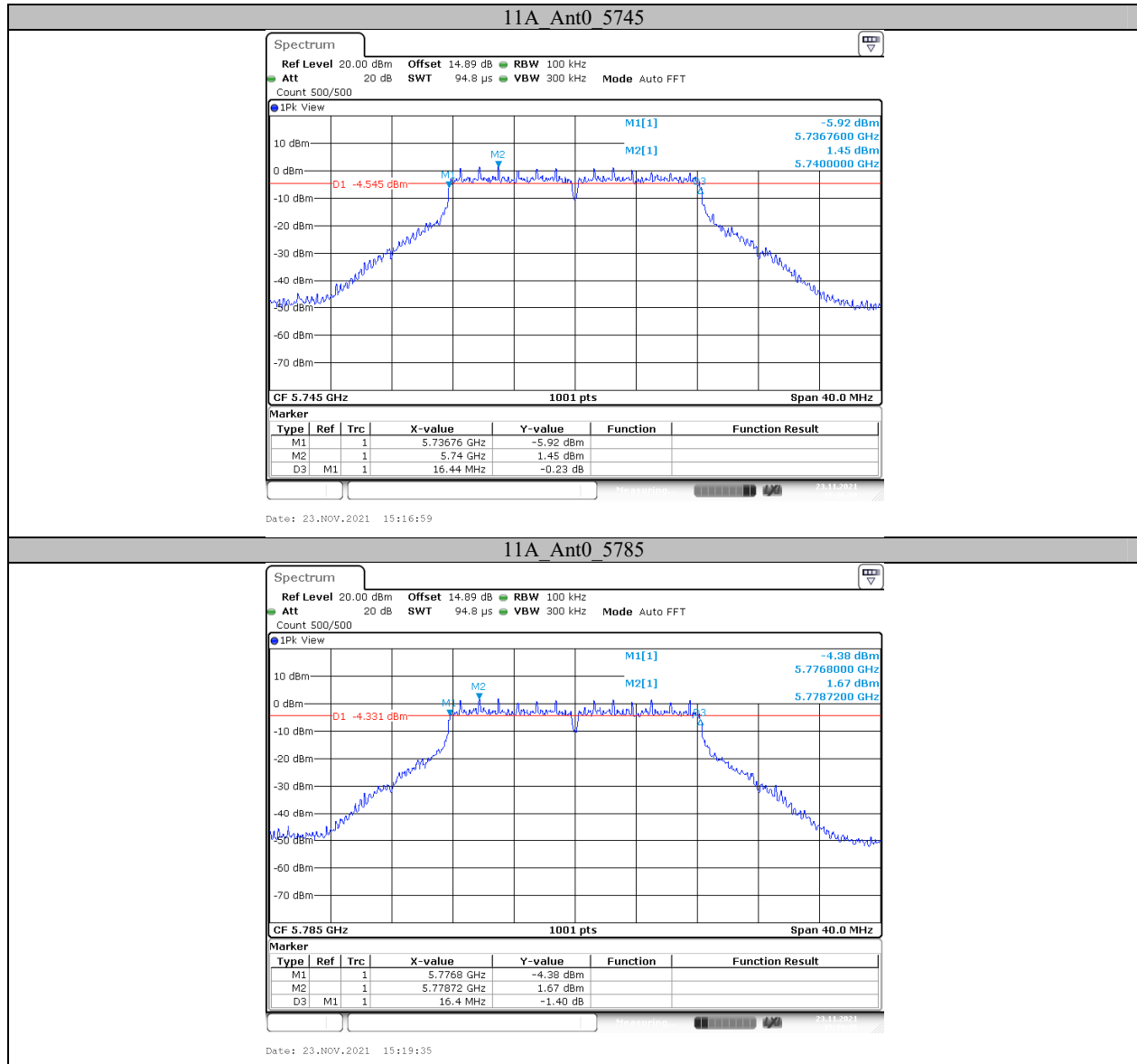


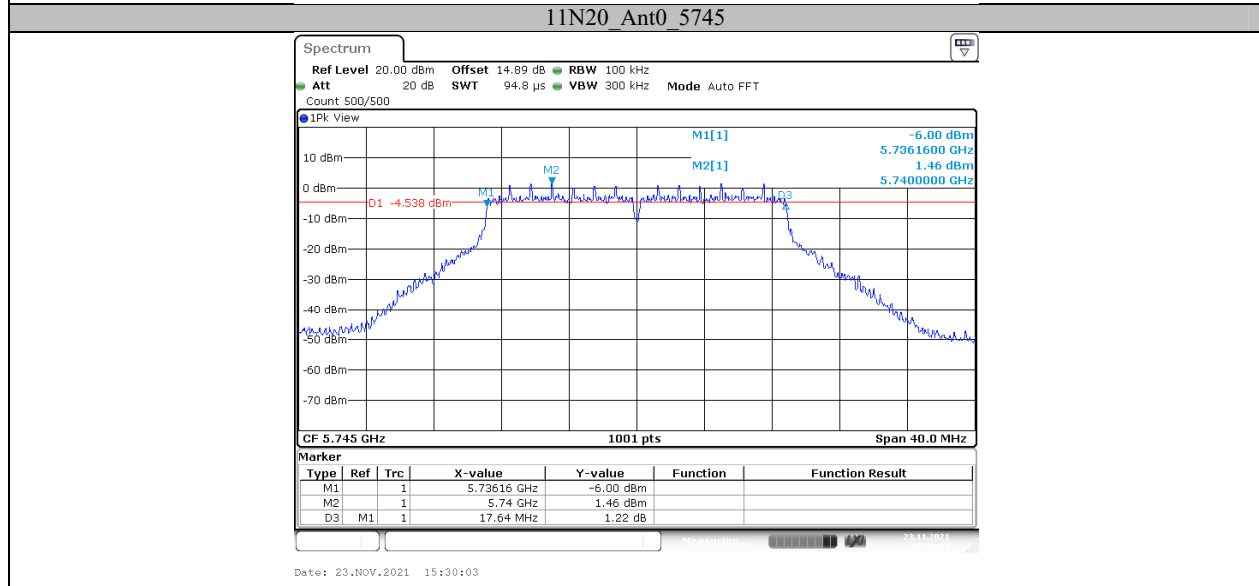
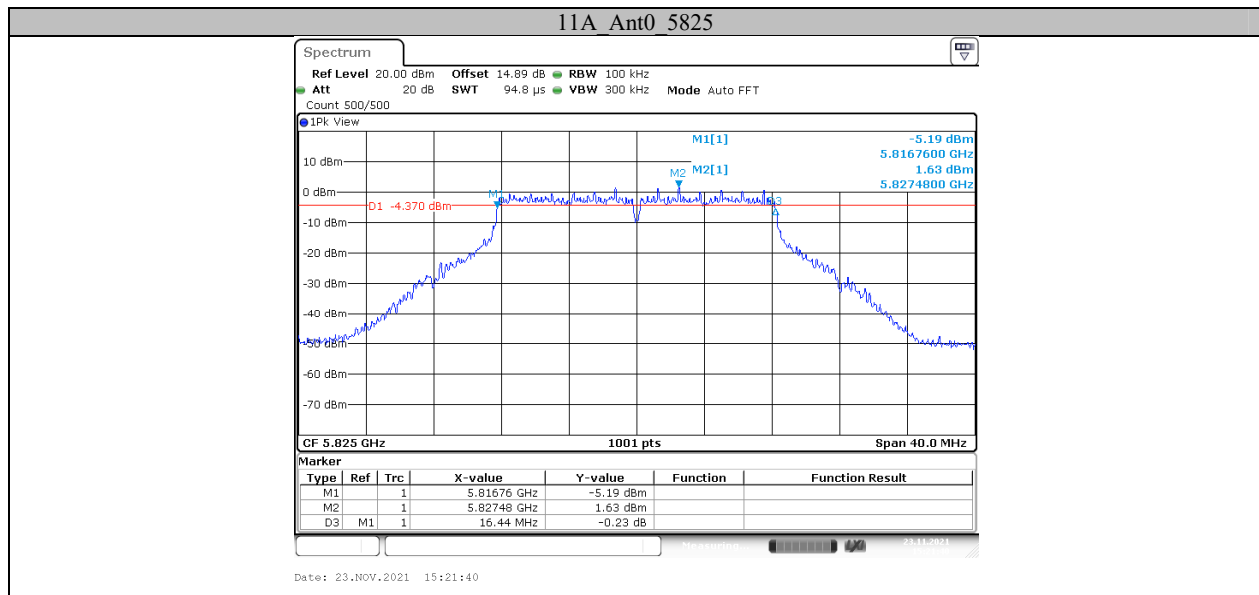
Appendix A3: Min emission bandwidth Test Result

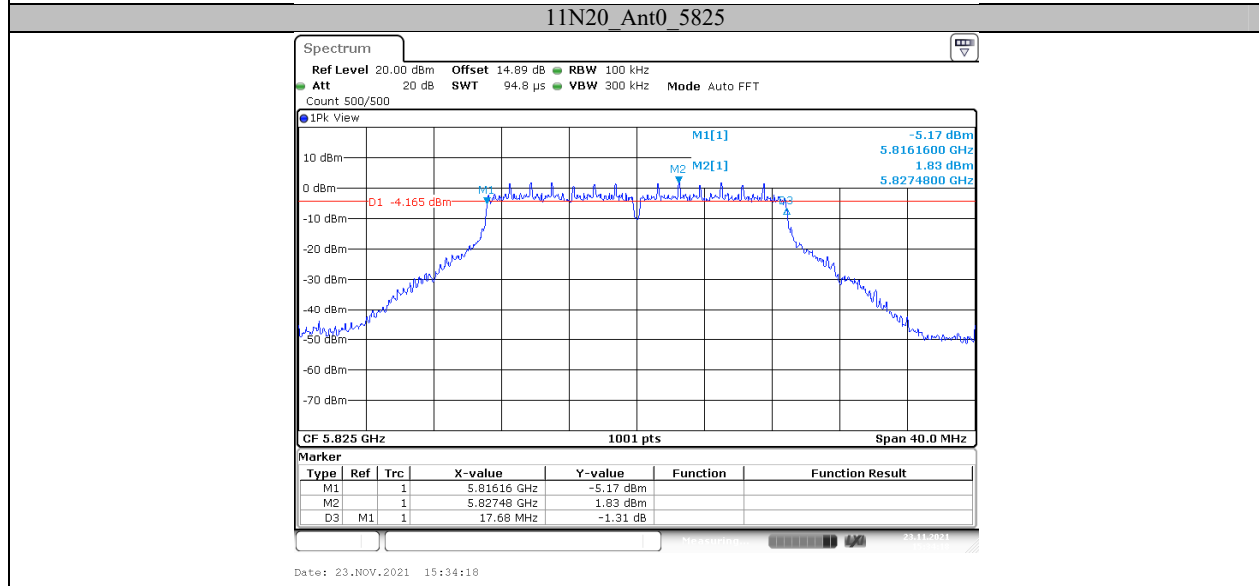
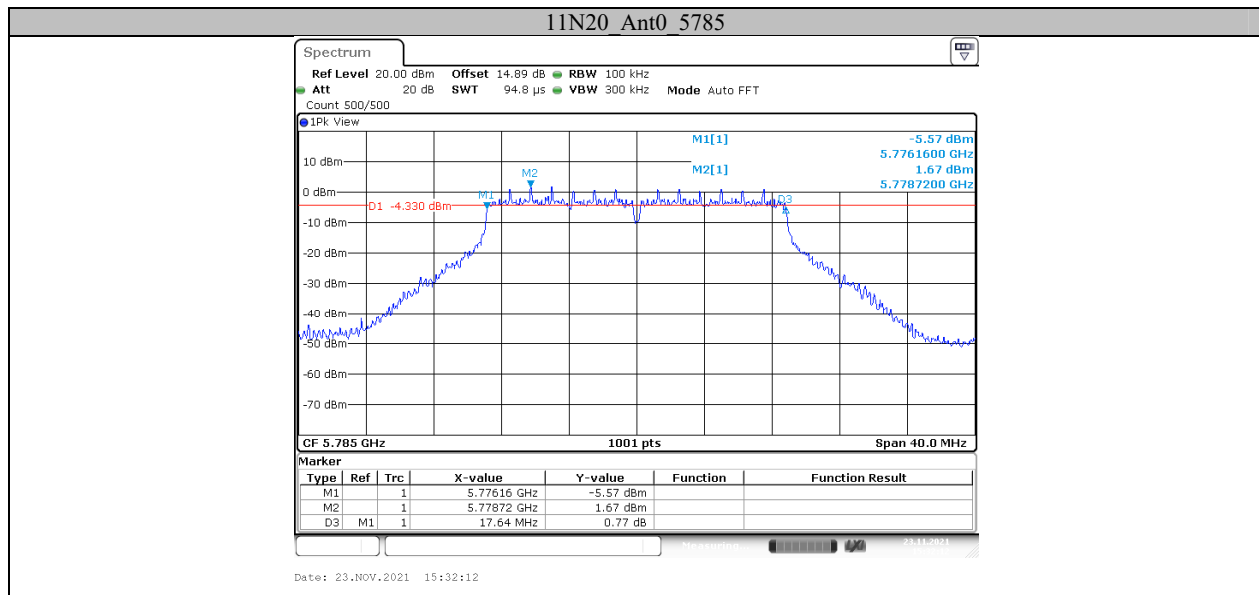
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant0	5745	16.440	5736.760	5753.200	0.5	PASS
		5785	16.400	5776.800	5793.200	0.5	PASS
		5825	16.440	5816.760	5833.200	0.5	PASS
11N20	Ant0	5745	17.640	5736.160	5753.800	0.5	PASS
		5785	17.640	5776.160	5793.800	0.5	PASS
		5825	17.680	5816.160	5833.840	0.5	PASS
11N40	Ant0	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC20	Ant0	5745	17.680	5736.160	5753.840	0.5	PASS
		5785	17.640	5776.160	5793.800	0.5	PASS
		5825	17.640	5816.160	5833.800	0.5	PASS
11AC40	Ant0	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC80	Ant0	5775	75.520	5737.240	5758.680	0.5	PASS

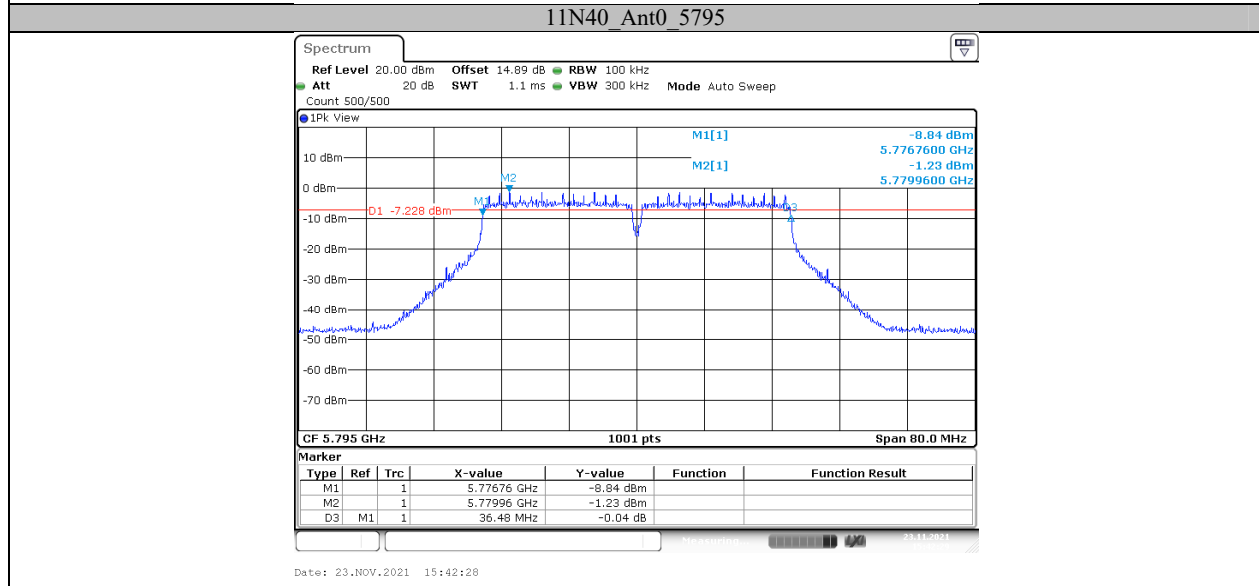
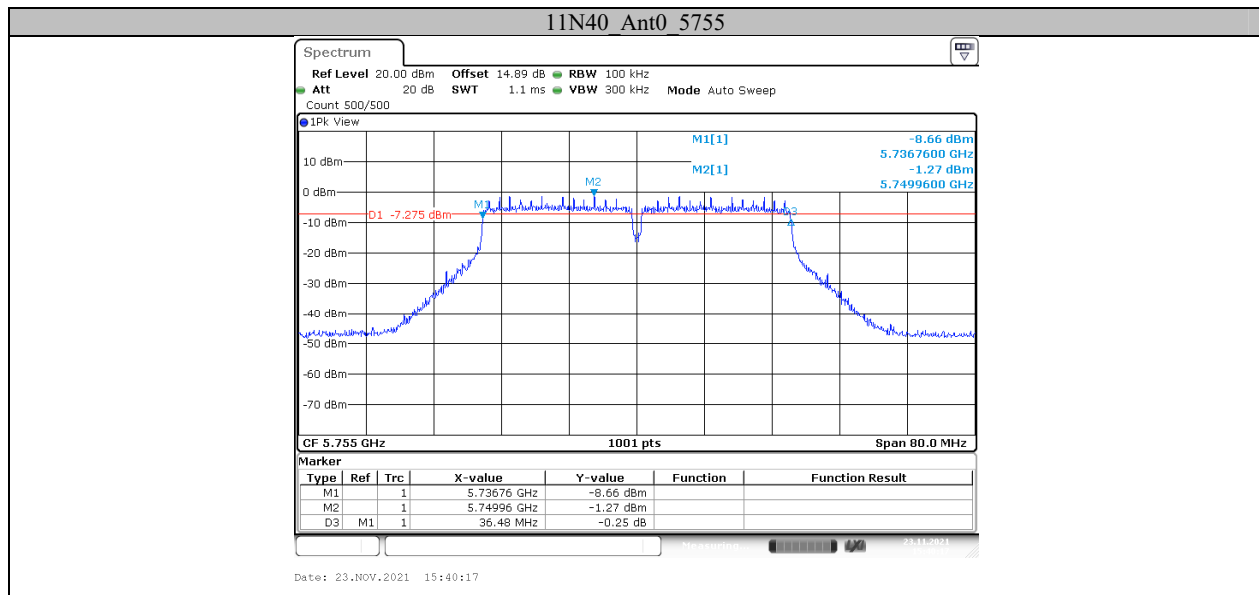
TestMode	Antenna	Channel	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.440	5736.760	5753.200	0.5	PASS
		5785	16.440	5776.760	5793.200	0.5	PASS
		5825	16.440	5816.760	5833.200	0.5	PASS
11N20	Ant1	5745	17.680	5736.160	5753.840	0.5	PASS
		5785	17.640	5776.160	5793.800	0.5	PASS
		5825	17.640	5816.160	5833.800	0.5	PASS
11N40	Ant1	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC20	Ant1	5745	17.680	5736.160	5753.840	0.5	PASS
		5785	17.680	5776.160	5793.840	0.5	PASS
		5825	17.640	5816.160	5833.800	0.5	PASS
11AC40	Ant1	5755	36.480	5736.760	5773.240	0.5	PASS
		5795	36.480	5776.760	5813.240	0.5	PASS
11AC80	Ant1	5775	75.520	5737.240	5770.040	0.5	PASS

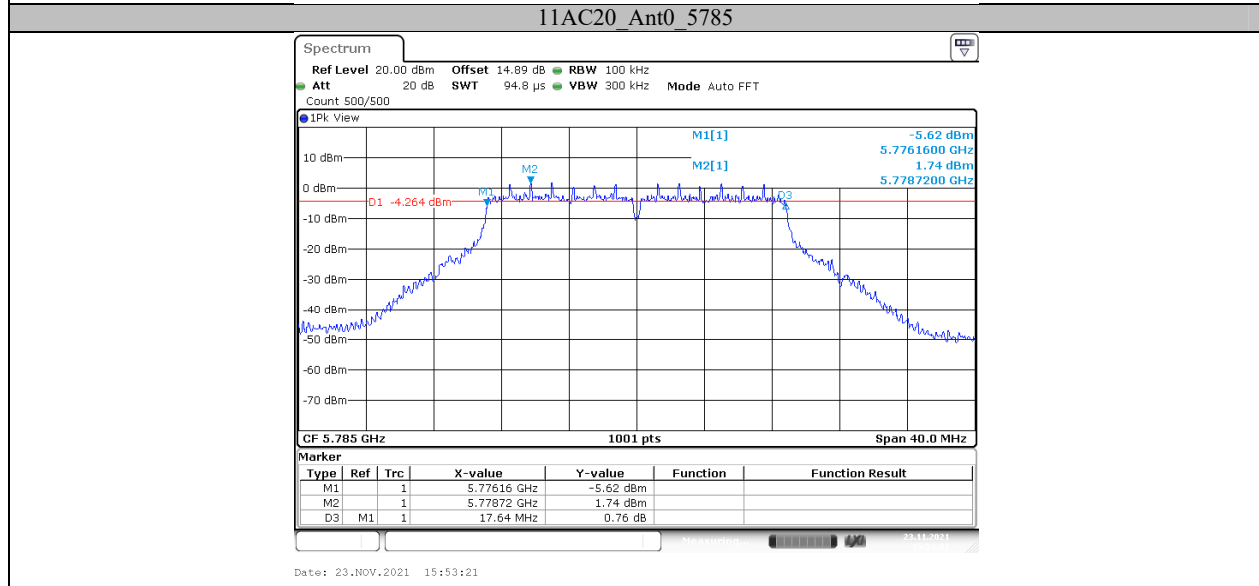
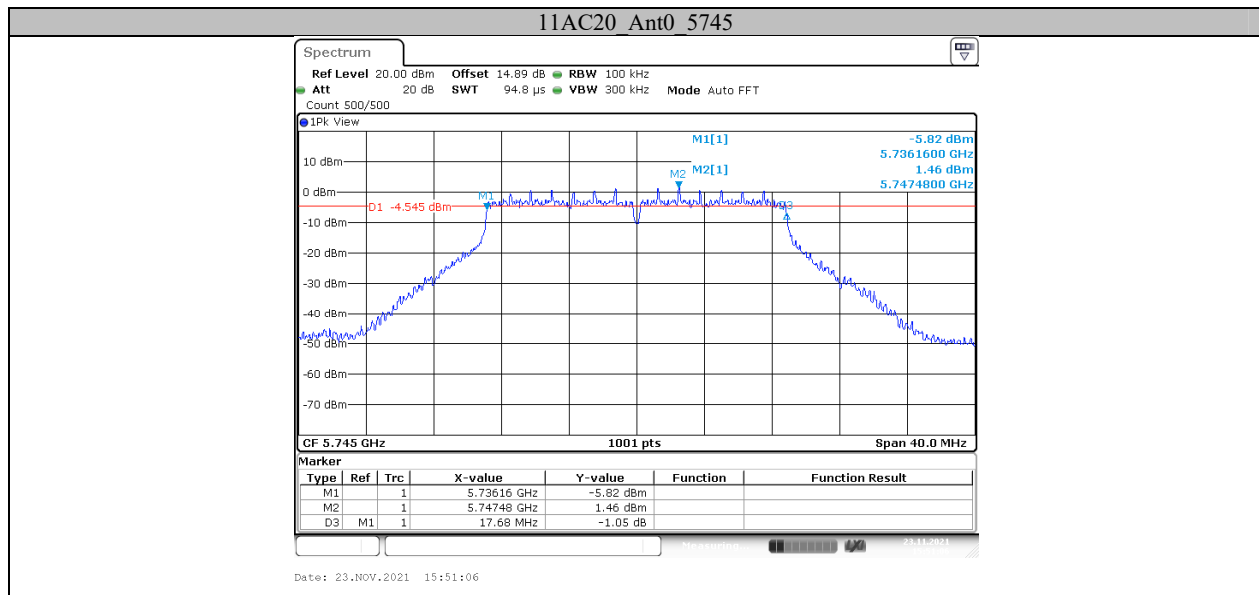
Test Graphs

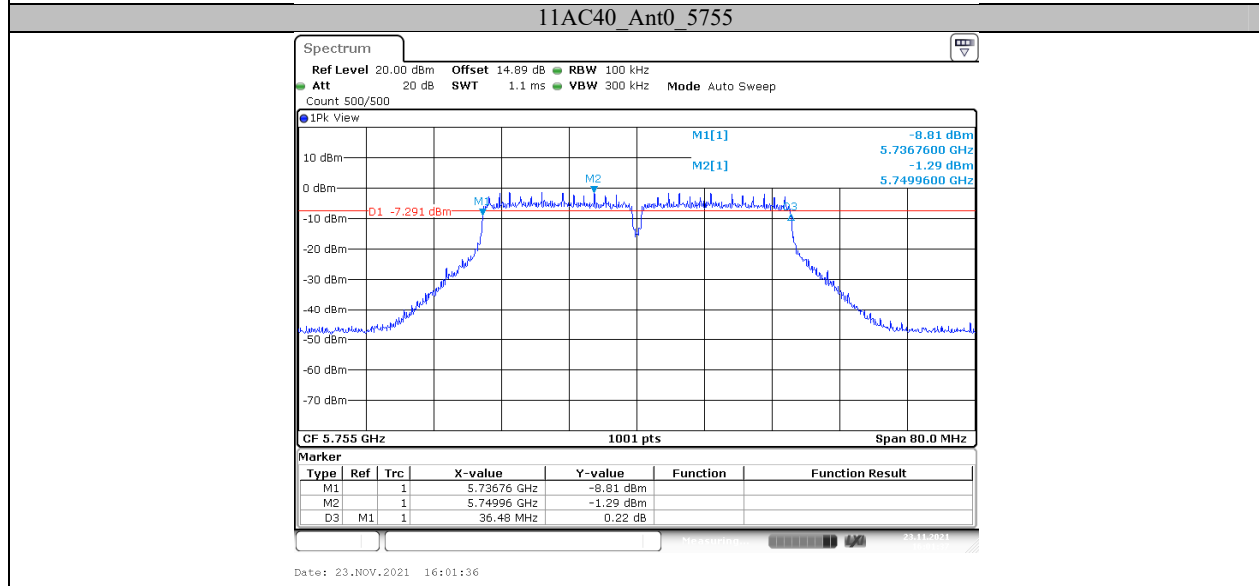
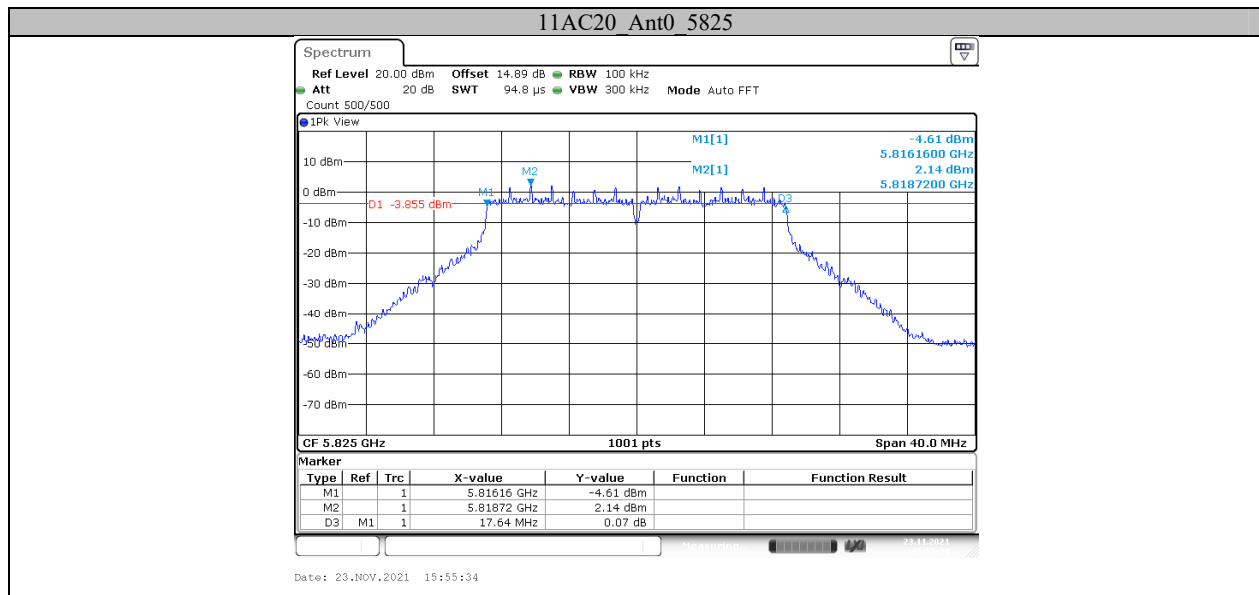


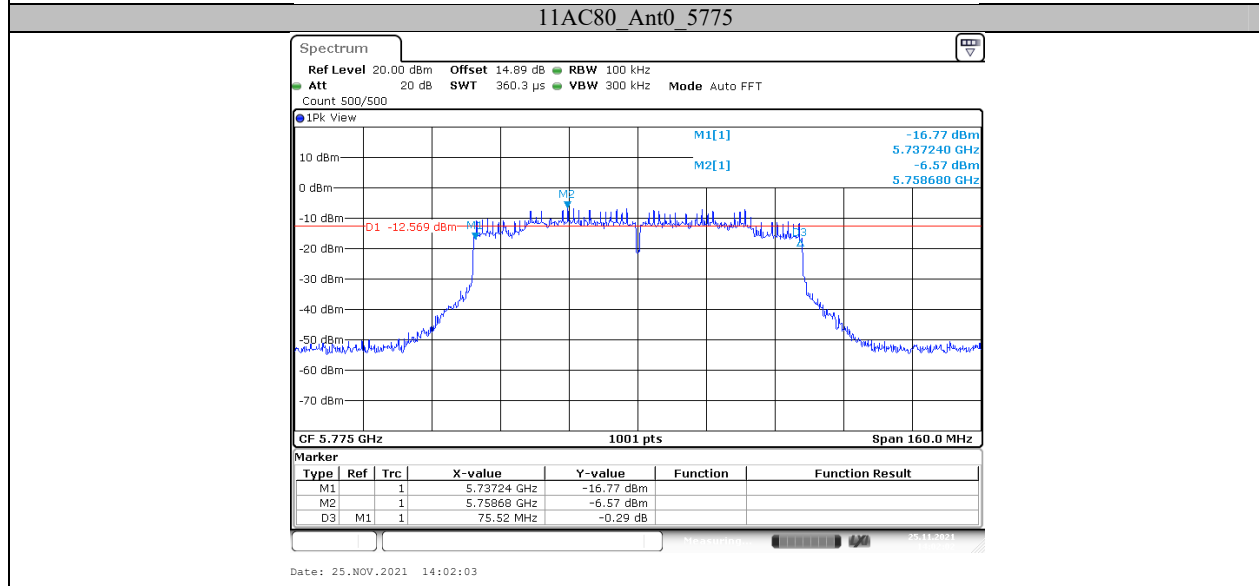
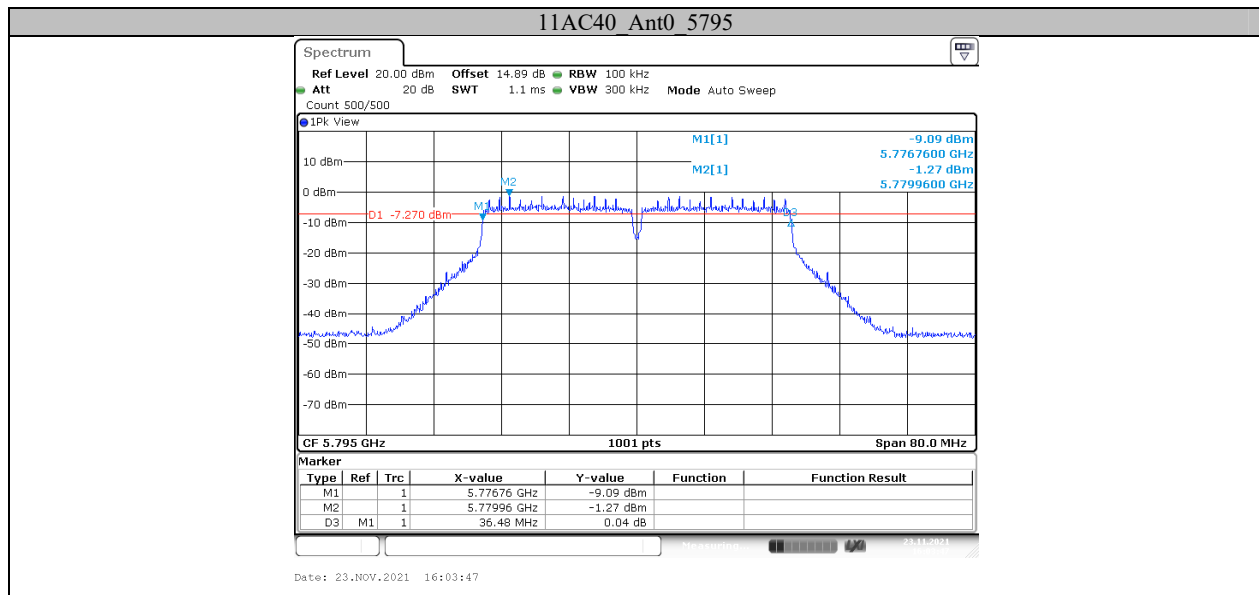


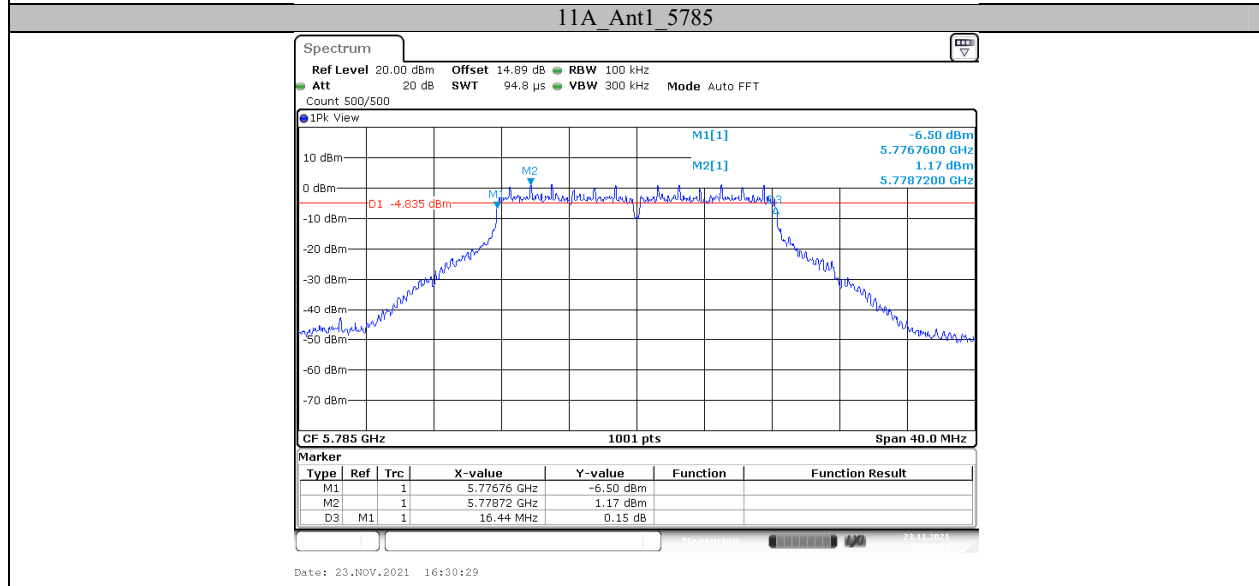
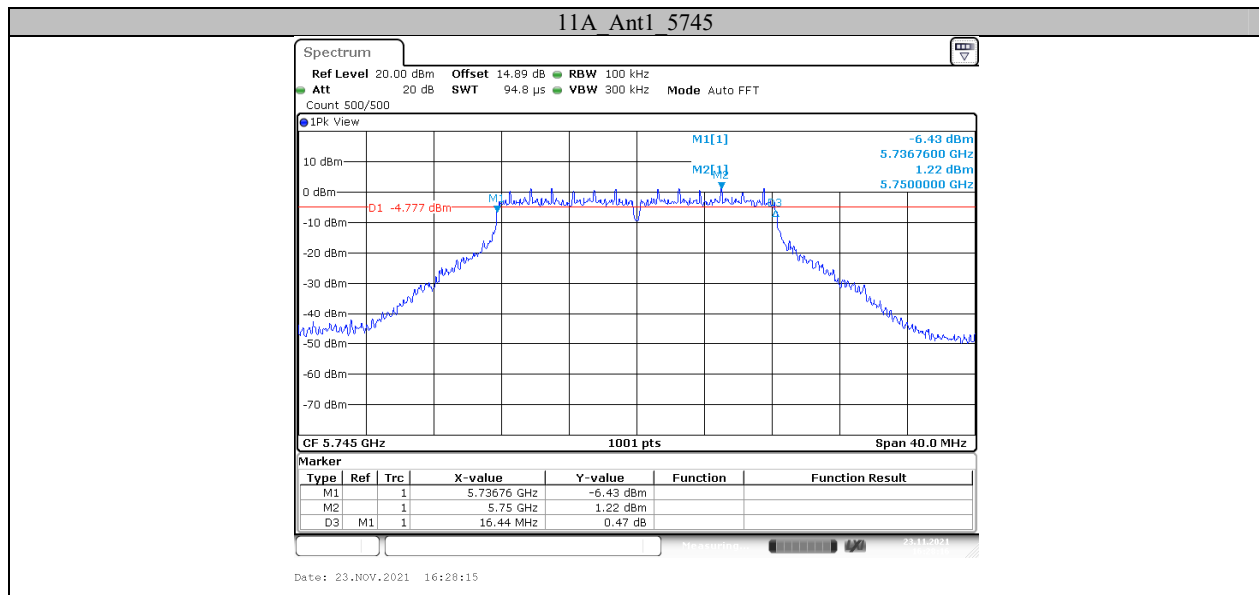


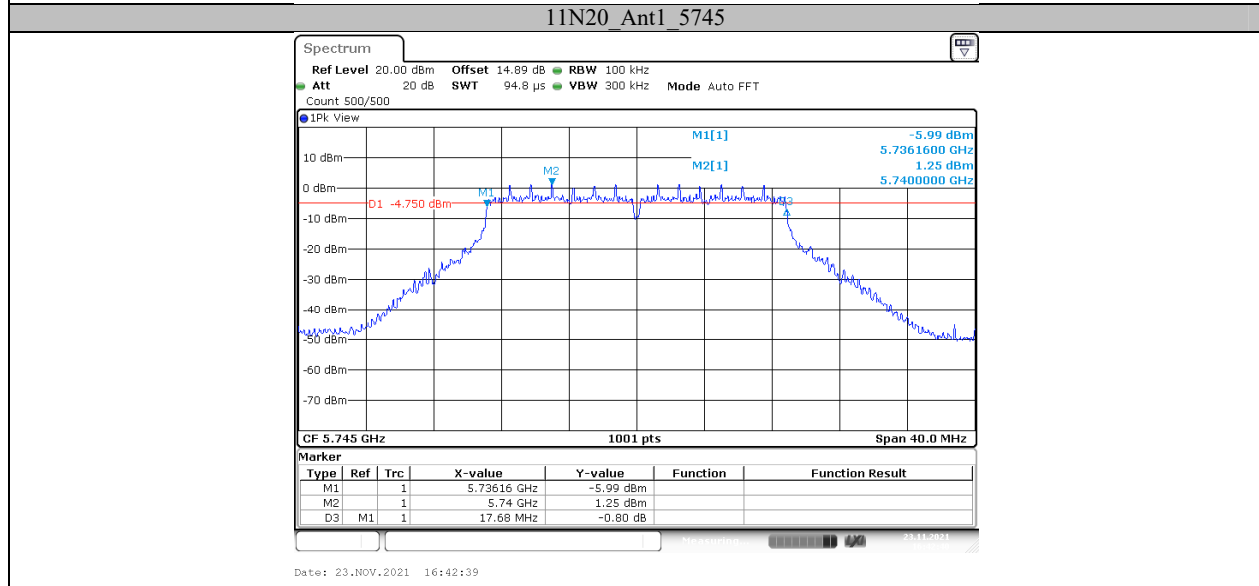
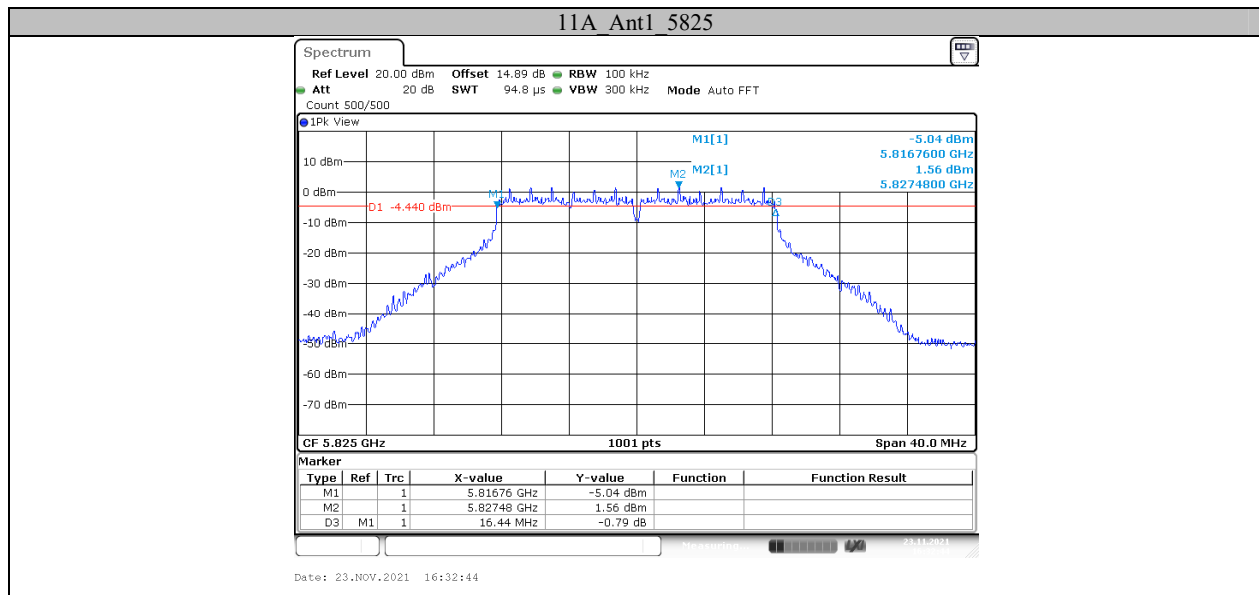


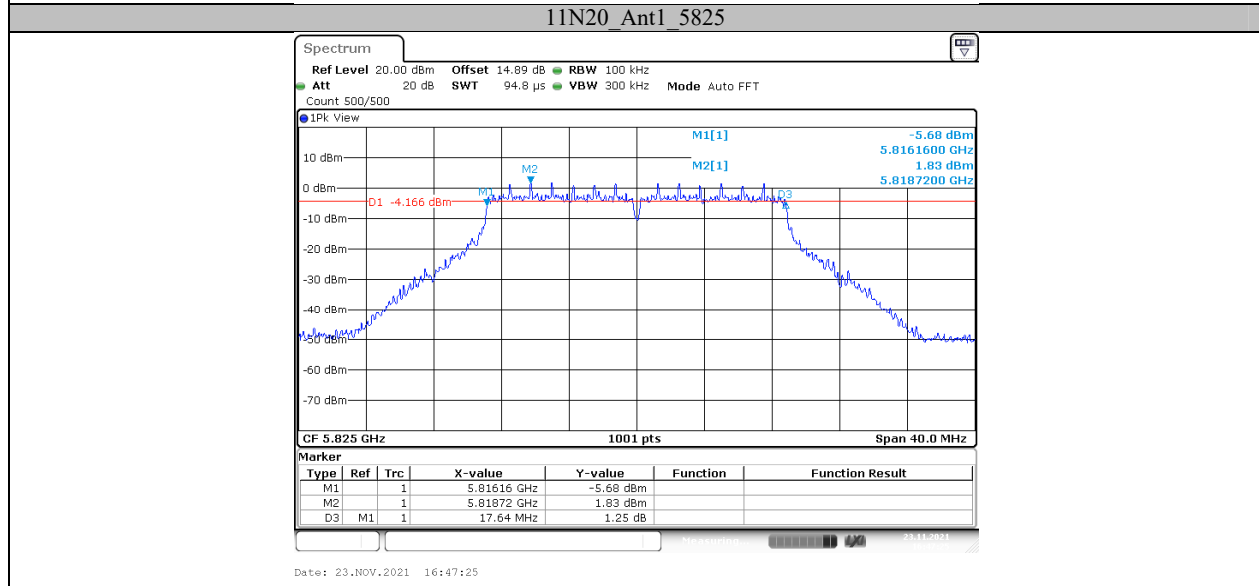
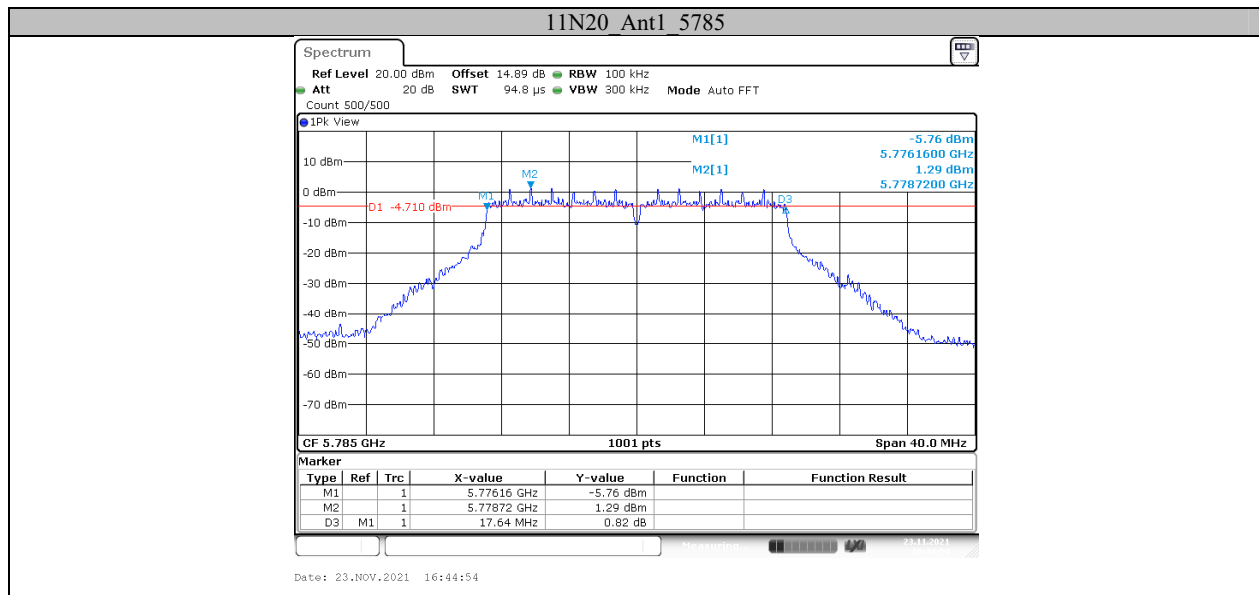


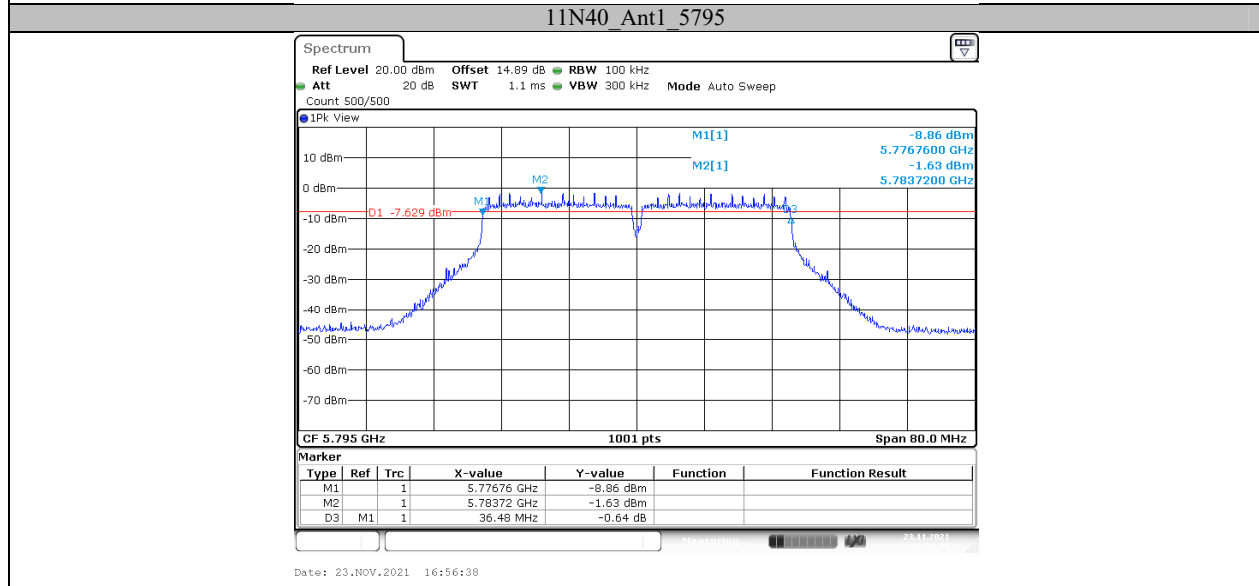
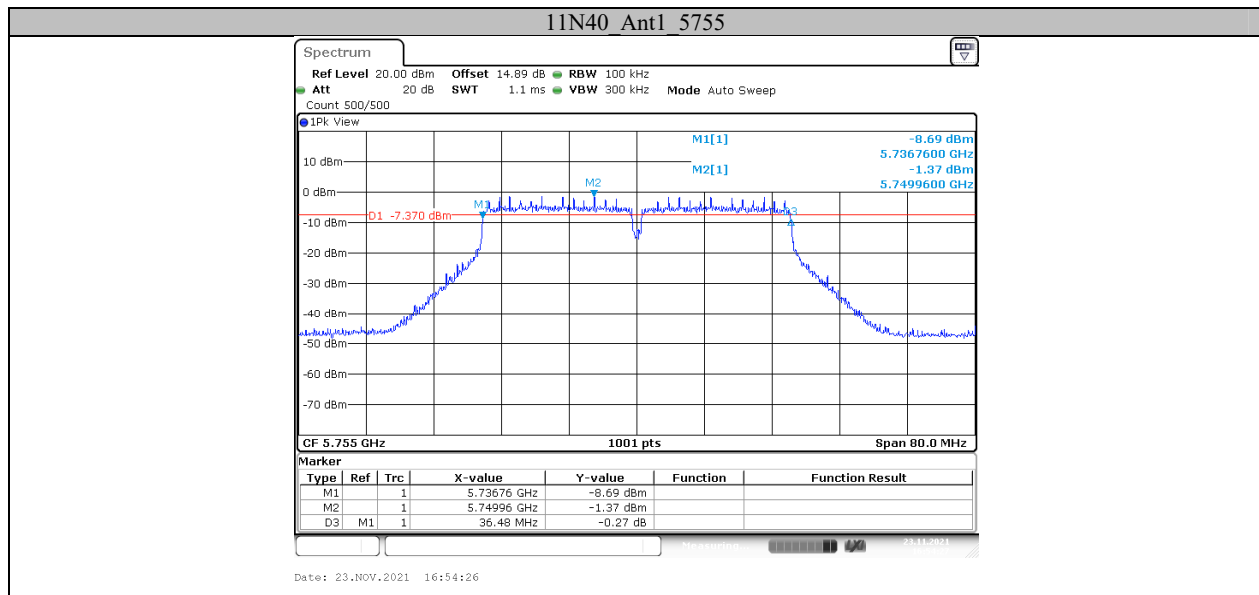


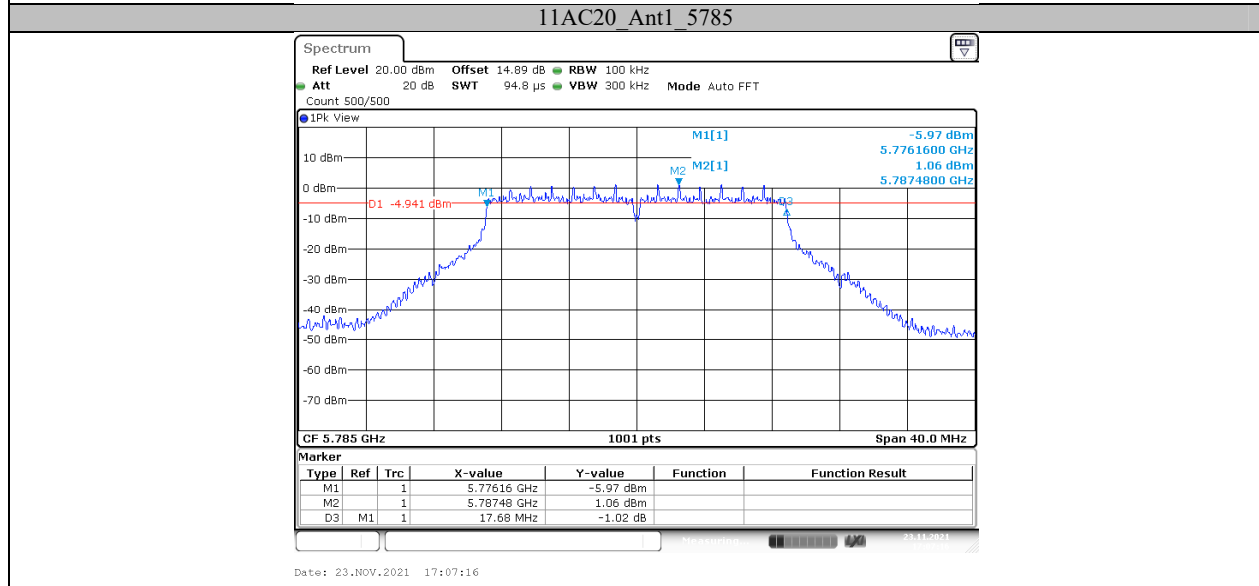
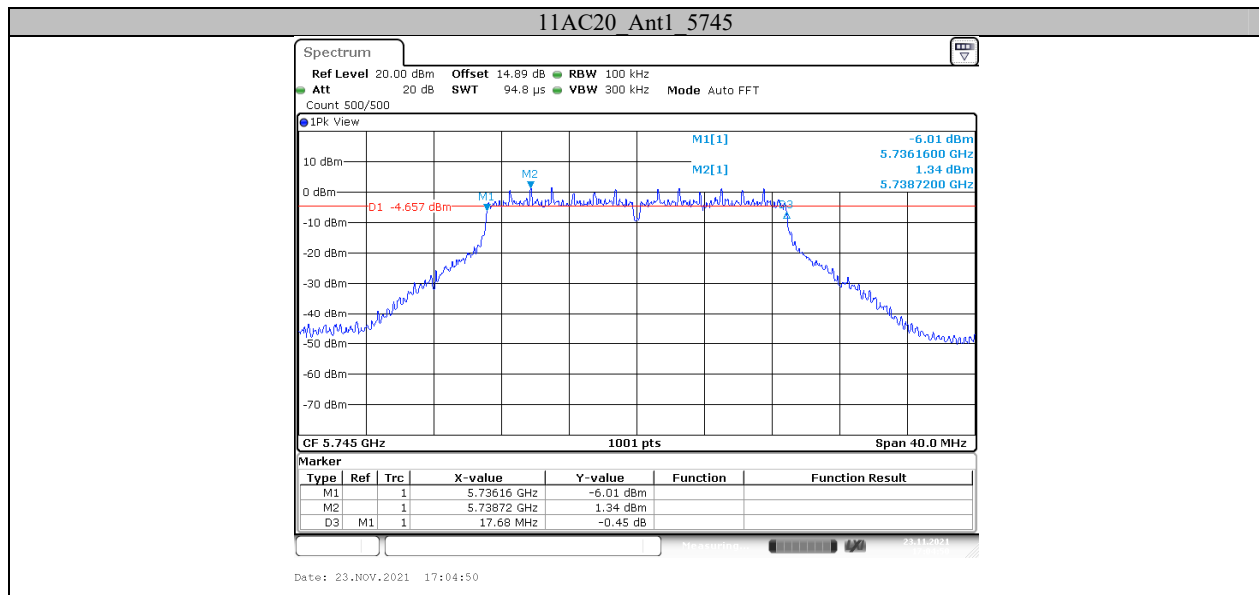


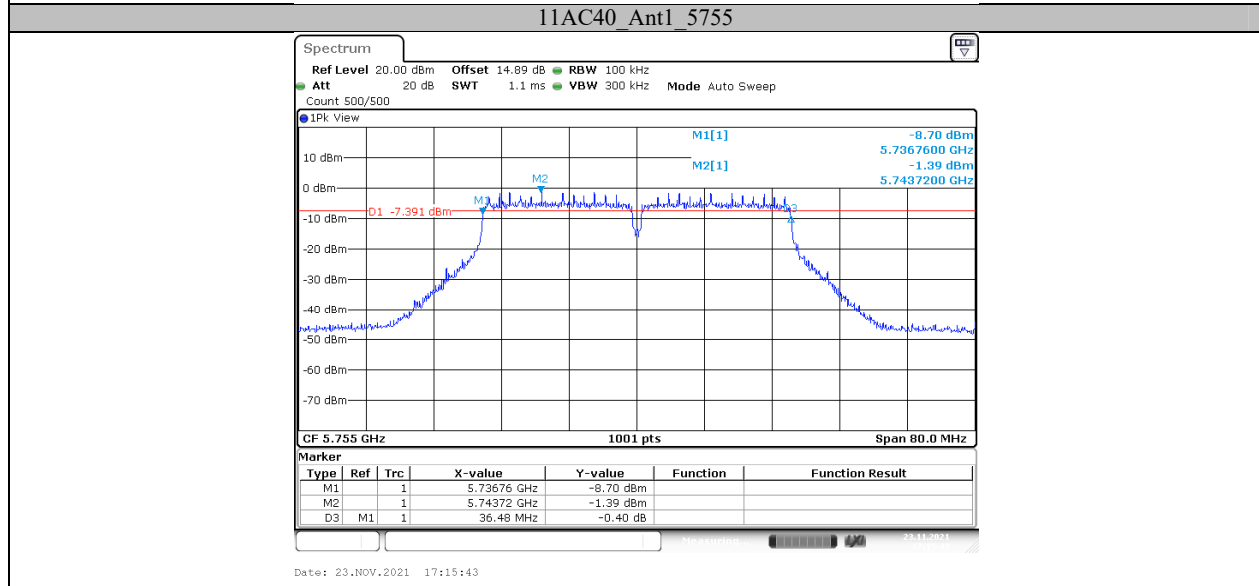
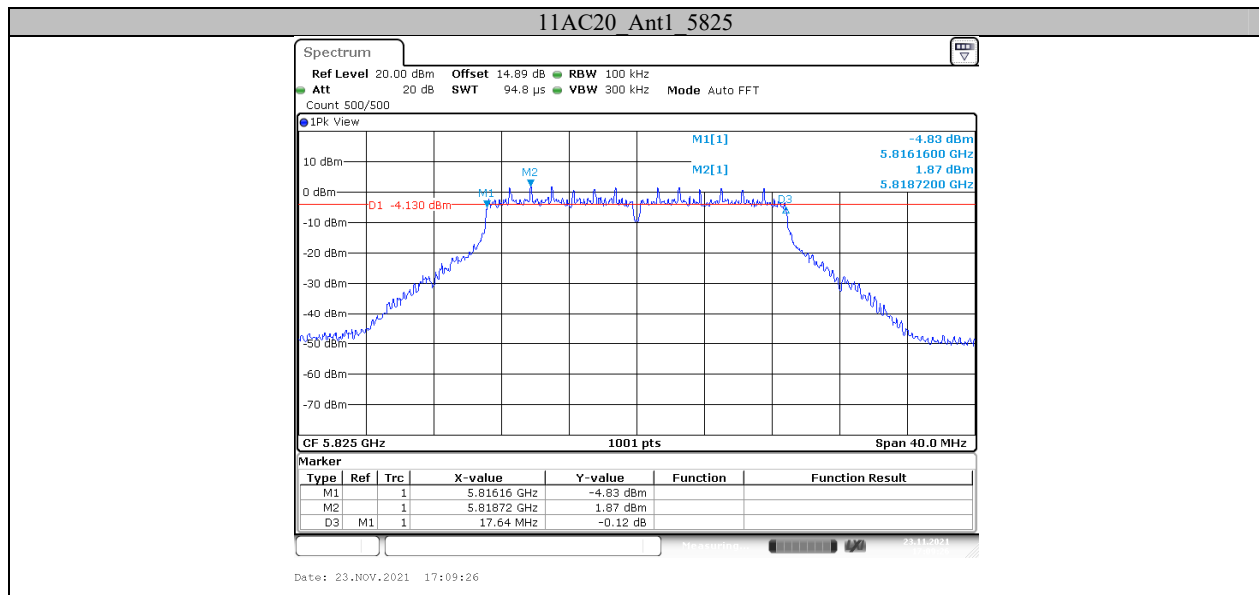


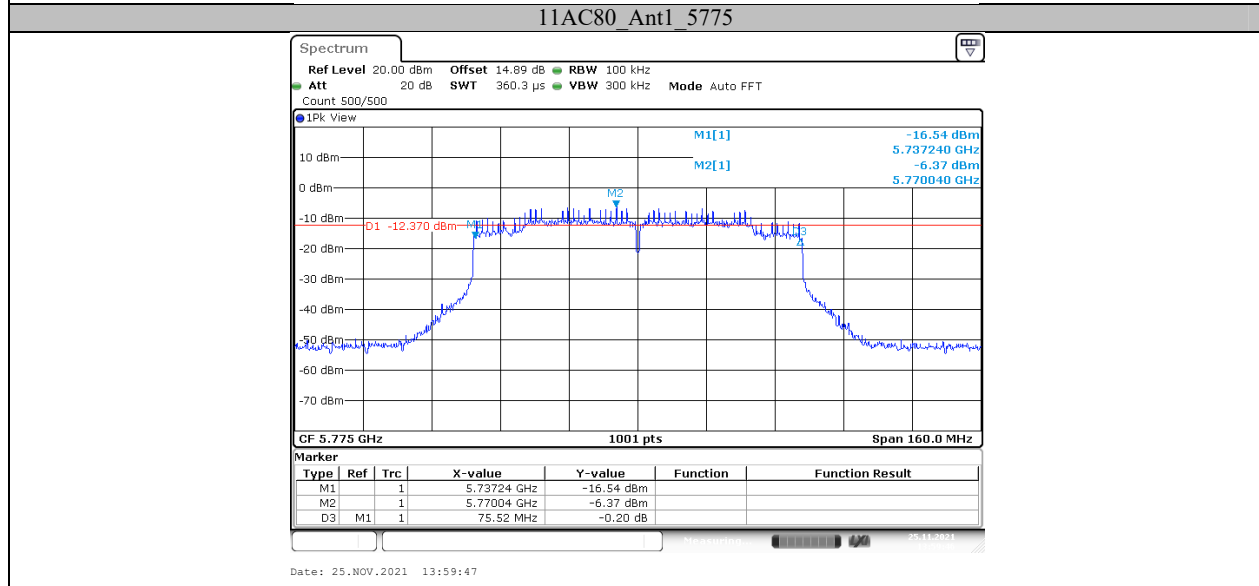
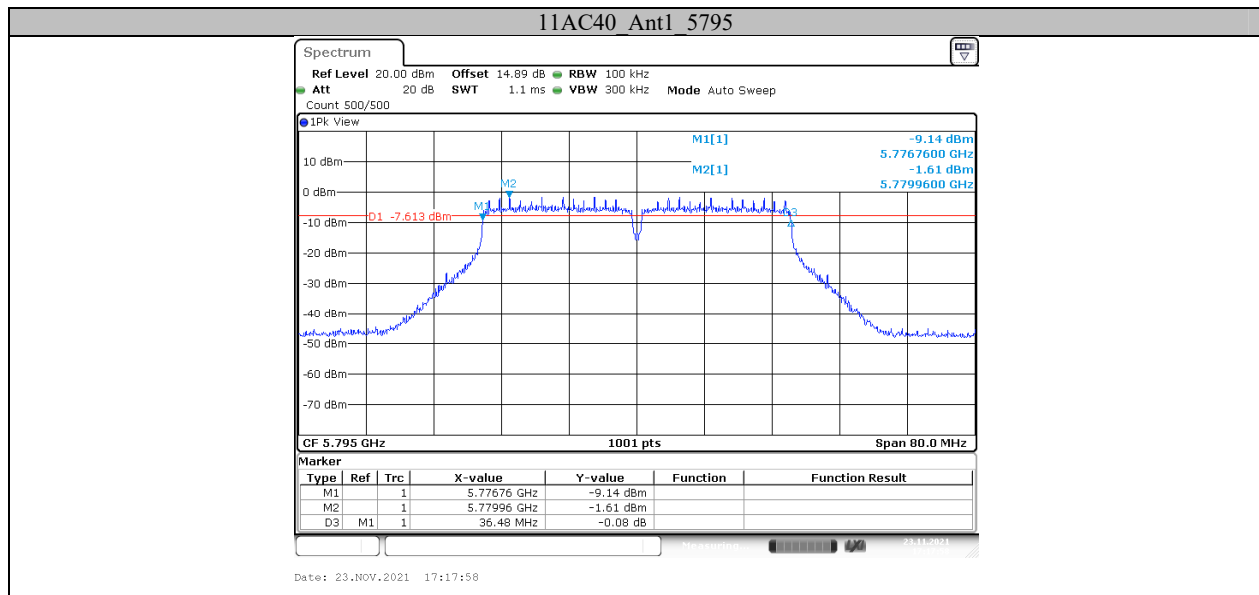












Appendix B: Maximum conducted output power Test Result

5150 MHz – 5250 MHz

TestMode	Channel	Conducted Output Average Power (dBm)			Limit[dBm]	Verdict
		Chain 0	Chain 1	Total		
802.11a	5180	13.51	13.45	16.49	<=23.98	PASS
	5200	13.42	13.79	16.62	<=23.98	PASS
	5240	13.24	13.46	16.36	<=23.98	PASS
802.11n20	5180	13.42	13.79	16.62	<=23.98	PASS
	5200	13.20	13.76	16.50	<=23.98	PASS
	5240	13.25	13.46	16.37	<=23.98	PASS
802.11n40	5190	13.45	13.46	16.47	<=23.98	PASS
	5230	13.25	13.98	16.64	<=23.98	PASS
802.11ac20	5180	13.76	13.31	16.55	<=23.98	PASS
	5200	13.46	13.79	16.64	<=23.98	PASS
	5240	13.46	13.21	16.35	<=23.98	PASS
802.11ac40	5190	13.67	13.46	16.58	<=23.98	PASS
	5230	13.46	13.23	16.36	<=23.98	PASS
802.11ac80	5210	13.46	13.79	16.64	<=23.98	PASS

Note 1: The device is a master and client device, and the tighter limit applies in the table.

Note 2: The maximum antenna gain is 3.47 dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

Array Gain = 0dB (i.e., no array gain) For $N_{ANT} \leq 4$;

So: Directional gain=3.47dBi <6dBi

5725 – 5850 MHz

TestMode	Channel	Conducted Output Average Power (dBm)			Limit[dBm]	Verdict
		Chain 0	Chain 1	Total		
802.11a	5745	13.23	13.76	16.51	<=30	PASS
	5785	13.42	13.46	16.45	<=30	PASS
	5825	13.20	13.45	16.34	<=30	PASS
802.11n20	5745	13.46	13.47	16.47	<=30	PASS
	5785	13.45	13.49	16.48	<=30	PASS
	5825	13.20	13.48	16.35	<=30	PASS
802.11n40	5755	13.24	13.62	16.44	<=30	PASS
	5795	13.48	13.79	16.65	<=30	PASS
802.11ac20	5745	13.78	13.79	16.80	<=30	PASS
	5785	13.46	13.92	16.71	<=30	PASS
	5825	13.12	13.79	16.48	<=30	PASS
802.11ac40	5755	13.46	13.69	16.59	<=30	PASS
	5795	13.79	13.21	16.52	<=30	PASS
802.11ac80	5775	13.47	13.46	16.47	<=30	PASS

Note 1: The device is a master and client device.

Note 2: The maximum antenna gain is 4.31 dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

Array Gain = 0dB (i.e., no array gain) For $N_{ANT} \leq 4$;

So: Directional gain=4.31dBi <6dBi

Appendix C: Maximum power spectral density Test Result

5150 – 5250 MHz

TestMode	Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit[dBm/MHz]	Verdict
		Chain 0	Chain 1	Total		
11A	5180	5.83	5.9	8.88	<=10.52	PASS
	5200	5.82	5.61	8.73	<=10.52	PASS
	5240	5.55	5.4	8.49	<=10.52	PASS
11N20	5180	7.61	6.95	10.3	<=10.52	PASS
	5200	7.75	7.18	10.48	<=10.52	PASS
	5240	7.22	7.2	10.22	<=10.52	PASS
11N40	5190	4.65	4.85	7.76	<=10.52	PASS
	5230	4.59	4.2	7.41	<=10.52	PASS
11AC20	5180	7.43	7.04	10.25	<=10.52	PASS
	5200	7.6	7.1	10.37	<=10.52	PASS
	5240	7.6	7.26	10.44	<=10.52	PASS
11AC40	5190	5.41	4.79	8.12	<=10.52	PASS
	5230	4.91	4.85	7.89	<=10.52	PASS
11AC80	5210	2.75	2.56	5.66	<=10.52	PASS

Note 1: The Duty Cycle Factor is compensated in the graph.

Note 2: The maximum antenna gain is 3.47 dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices

$$\text{Array Gain} = 10 \log(N_{\text{ANT}}/N_{\text{ss}})\text{dB}$$

$$\text{So: Directional gain} = G_{\text{ANT}} + \text{Array Gain} = 3.47 + 10 \cdot \log(2/1) = 6.48\text{dBi}$$

5725 – 5850 MHz

TestMode	Frequency (MHz)	Power Spectral Density (dBm/500kHz)			Limit[dBm/500kHz]	Verdict
		Chain 0	Chain 1	Total		
11A	5745	6.33	5.3	8.86	<=28.68	PASS
	5785	5.69	5.28	8.5	<=28.68	PASS
	5825	6.01	5.51	8.78	<=28.68	PASS
11N20	5745	8.73	5.02	10.27	<=28.68	PASS
	5785	5.71	5.11	8.43	<=28.68	PASS
	5825	5.79	5.63	8.72	<=28.68	PASS
11N40	5755	2.22	2.94	5.61	<=28.68	PASS
	5795	2.8	2.16	5.5	<=28.68	PASS
11AC20	5745	5.4	5.41	8.42	<=28.68	PASS
	5785	5.14	4.94	8.06	<=28.68	PASS
	5825	5.55	5.48	8.52	<=28.68	PASS
11AC40	5755	2.36	2.9	5.65	<=28.68	PASS
	5795	2.37	3.08	5.75	<=28.68	PASS
11AC80	5775	0.13	-0.01	3.07	<=28.68	PASS

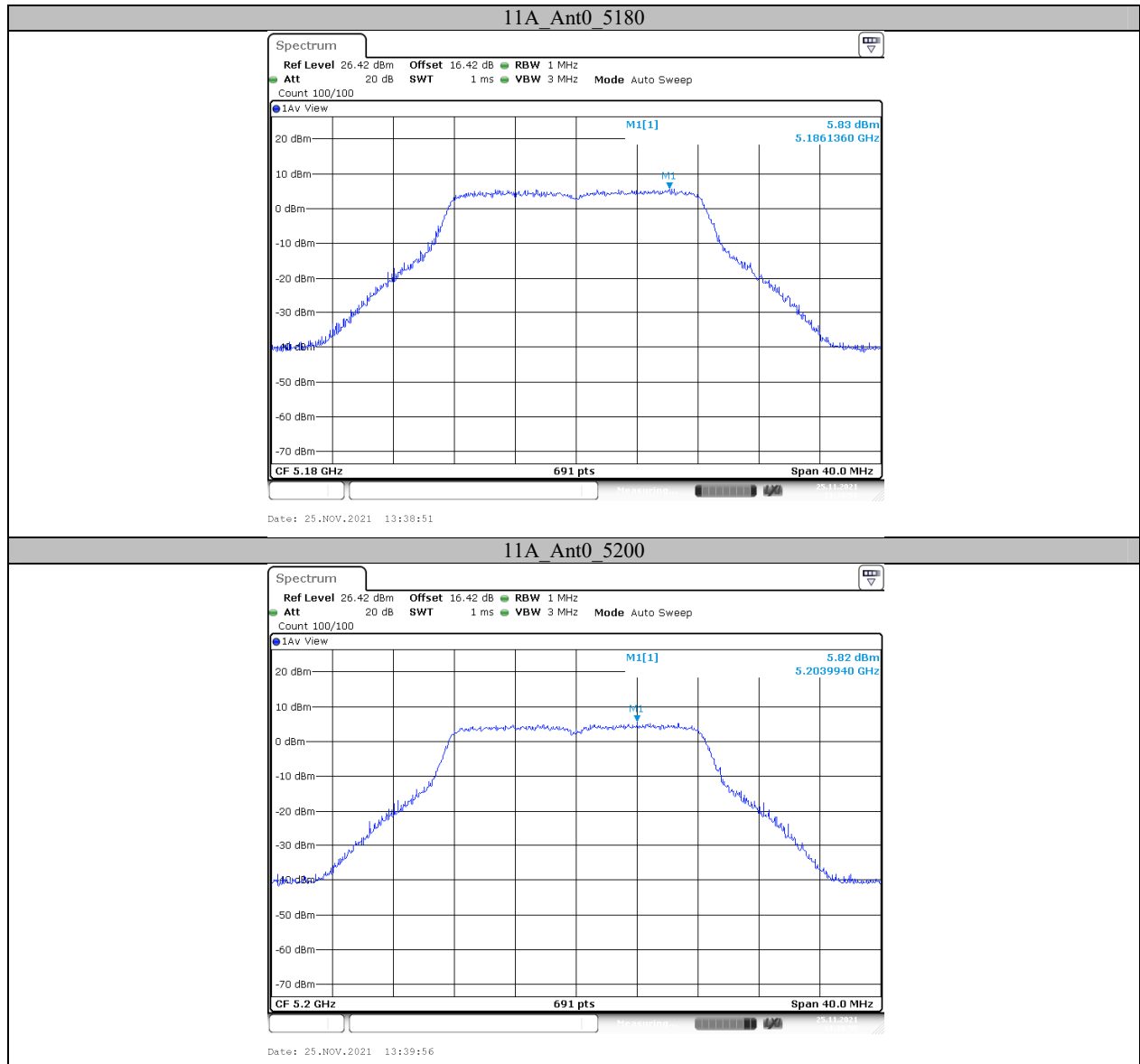
Note 1: The Duty Cycle Factor is compensated in the graph.

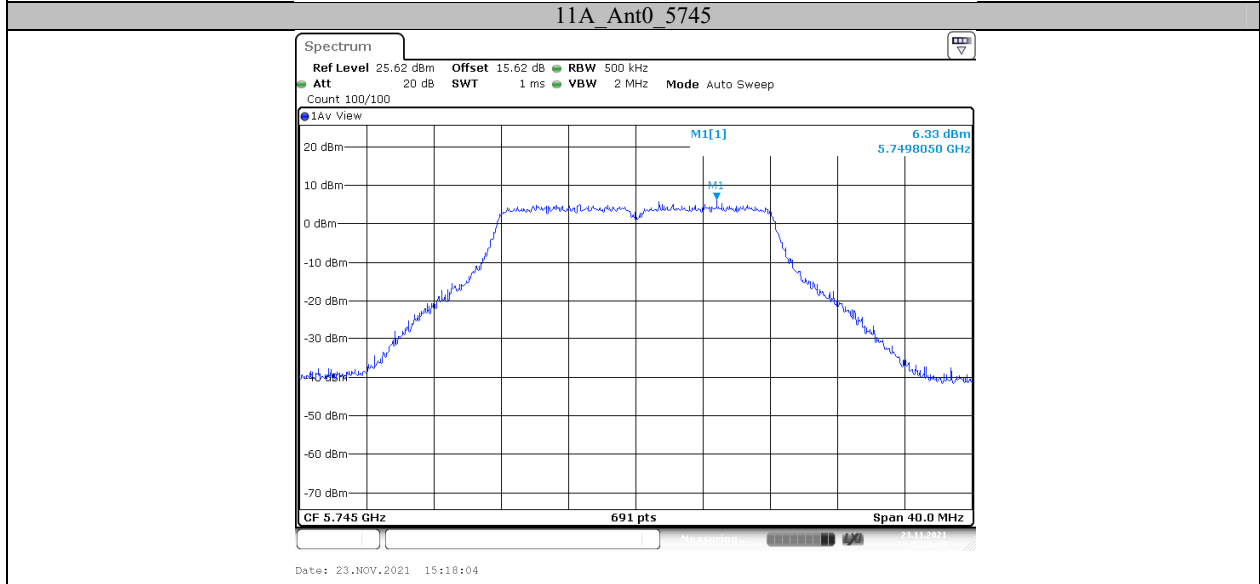
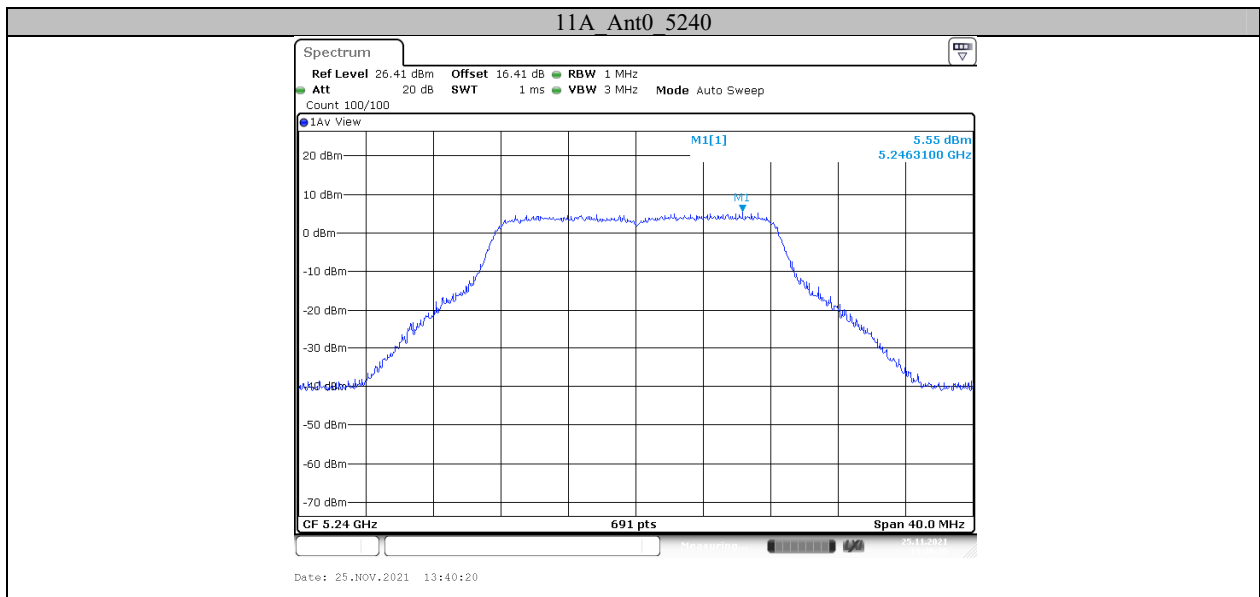
Note 2: The maximum antenna gain is 4.31 dBi. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices

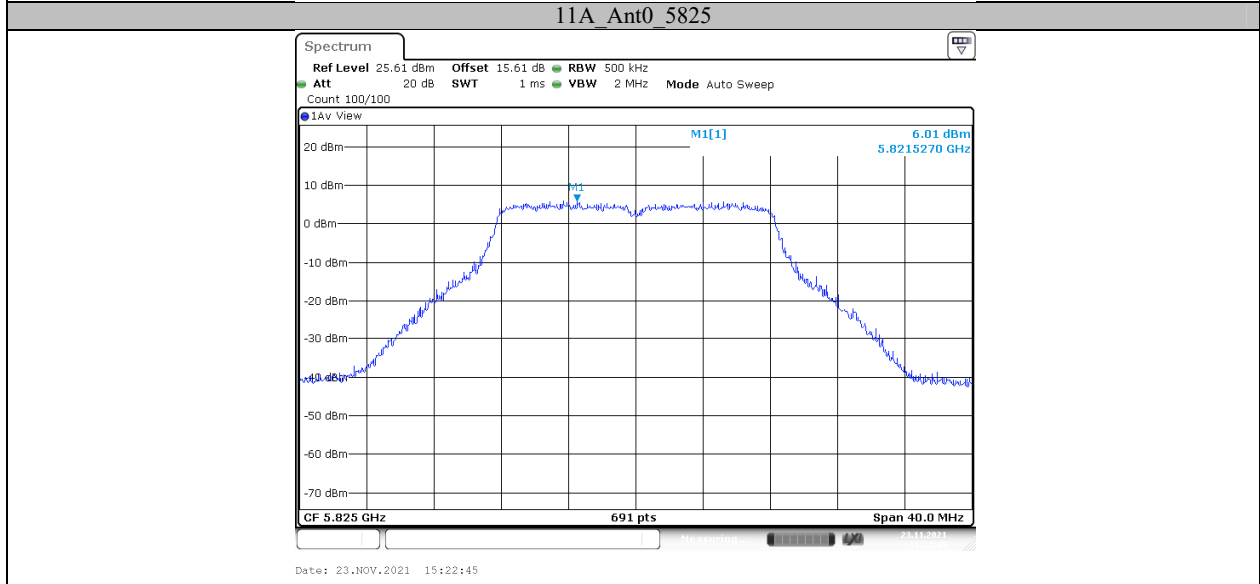
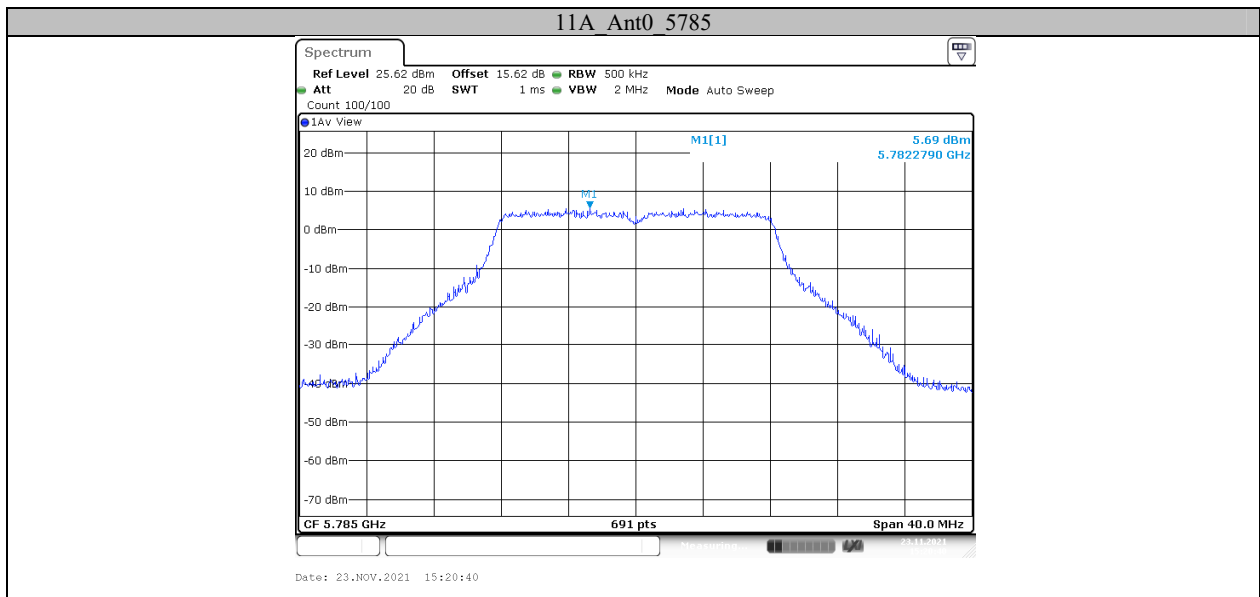
$$\text{Array Gain} = 10 \log(N_{\text{ANT}}/N_{\text{ss}})\text{dB}$$

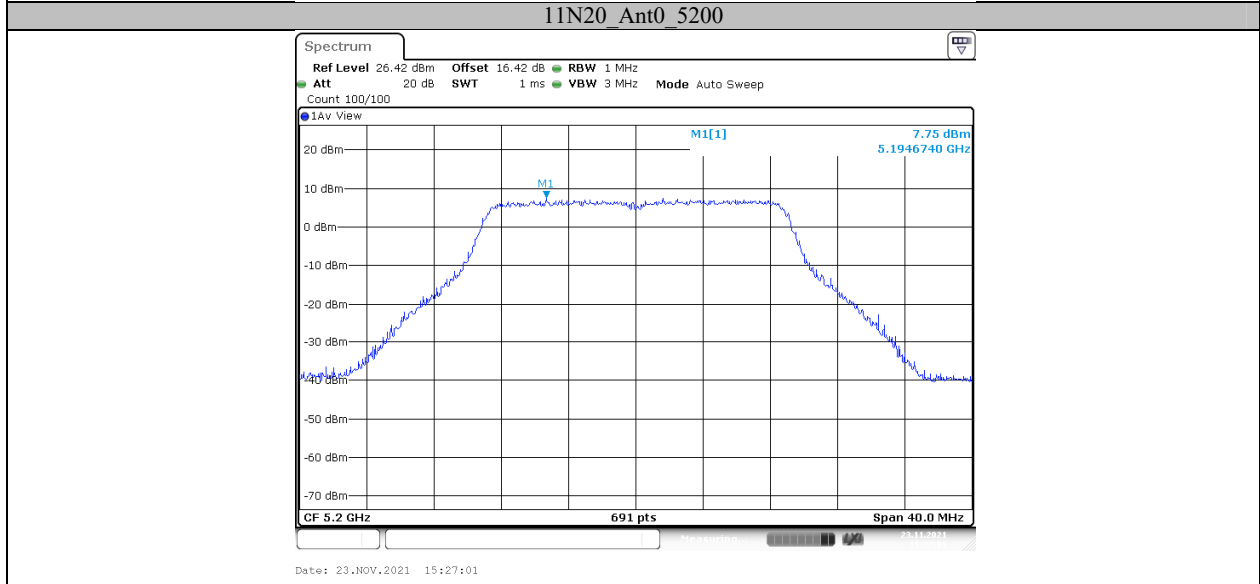
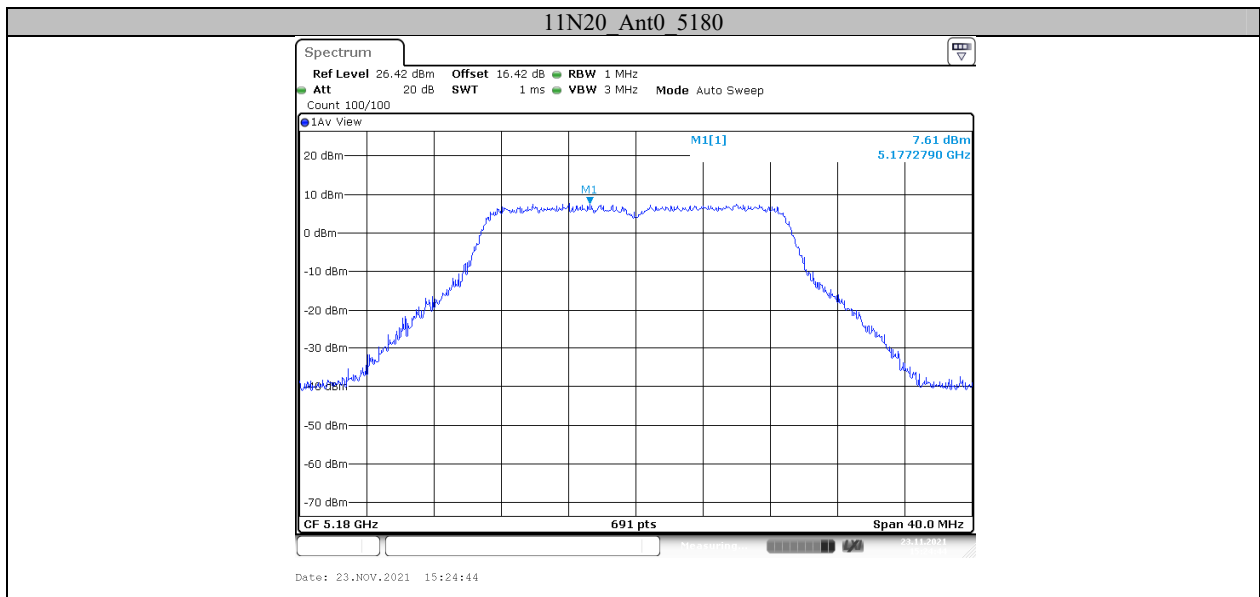
$$\text{So: Directional gain} = G_{\text{ANT}} + \text{Array Gain} = 4.31 + 10 * \log(2/1) = 7.32\text{dBi}$$

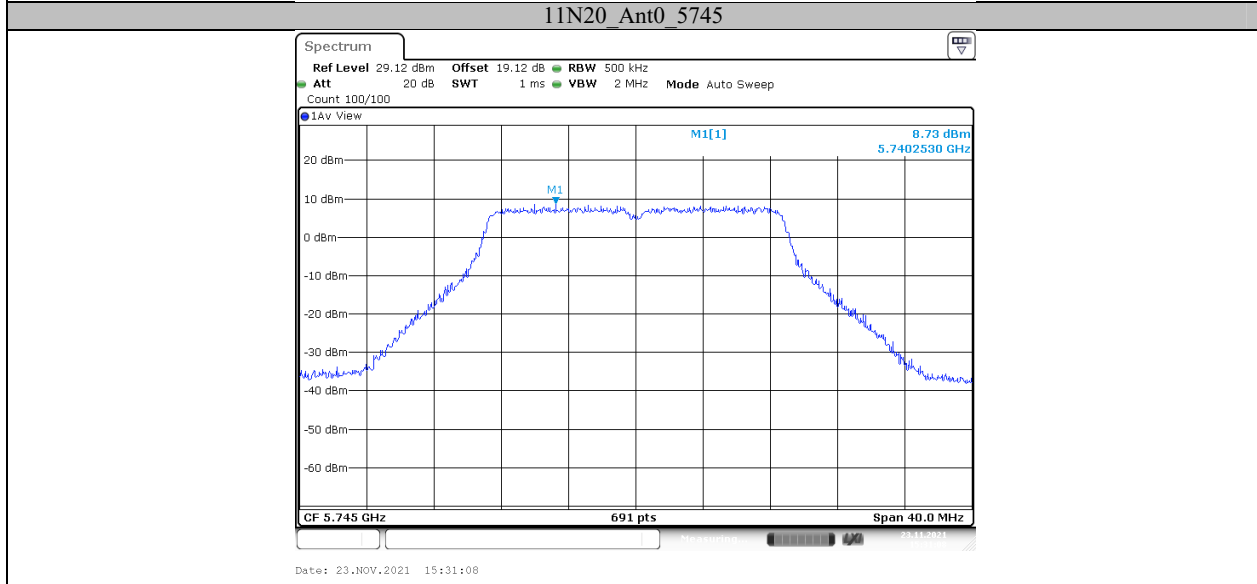
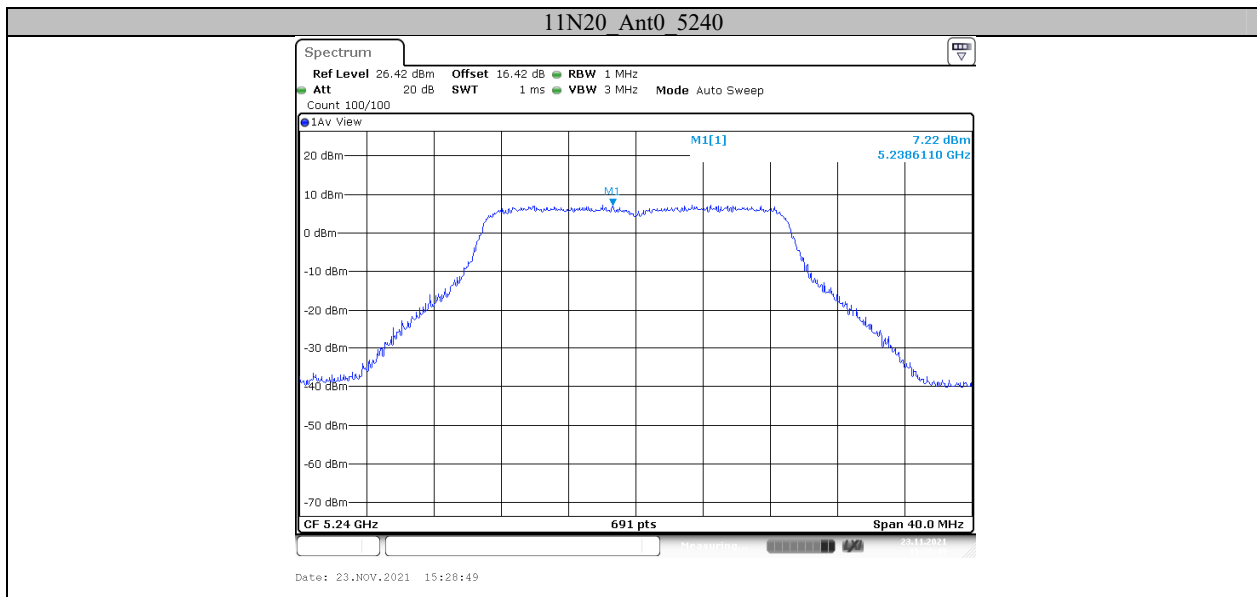
Test Graphs

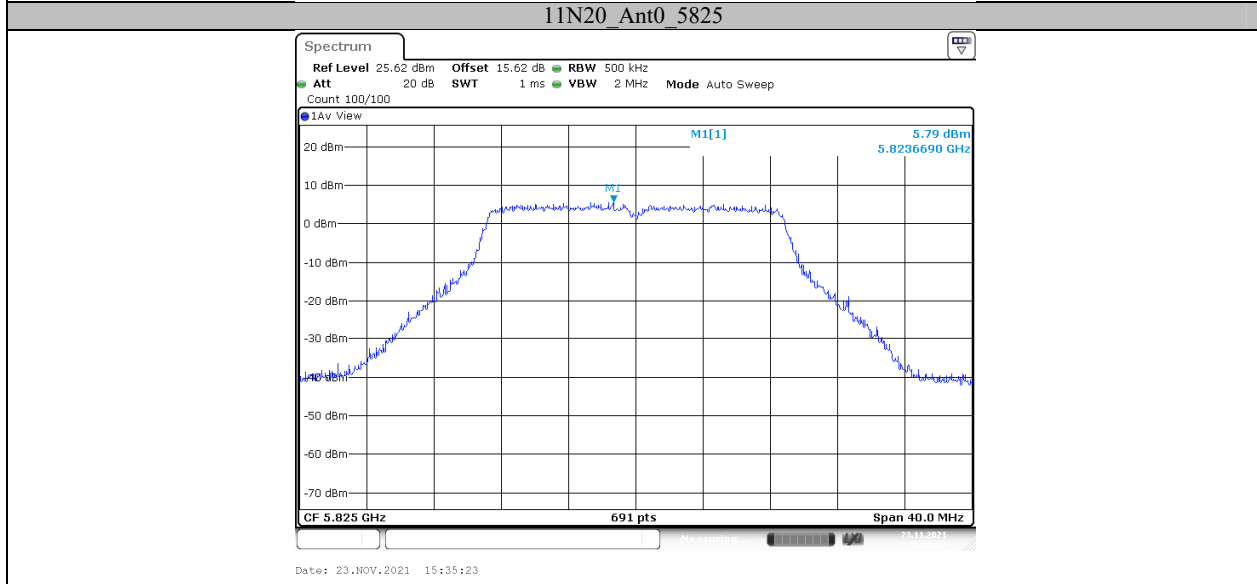
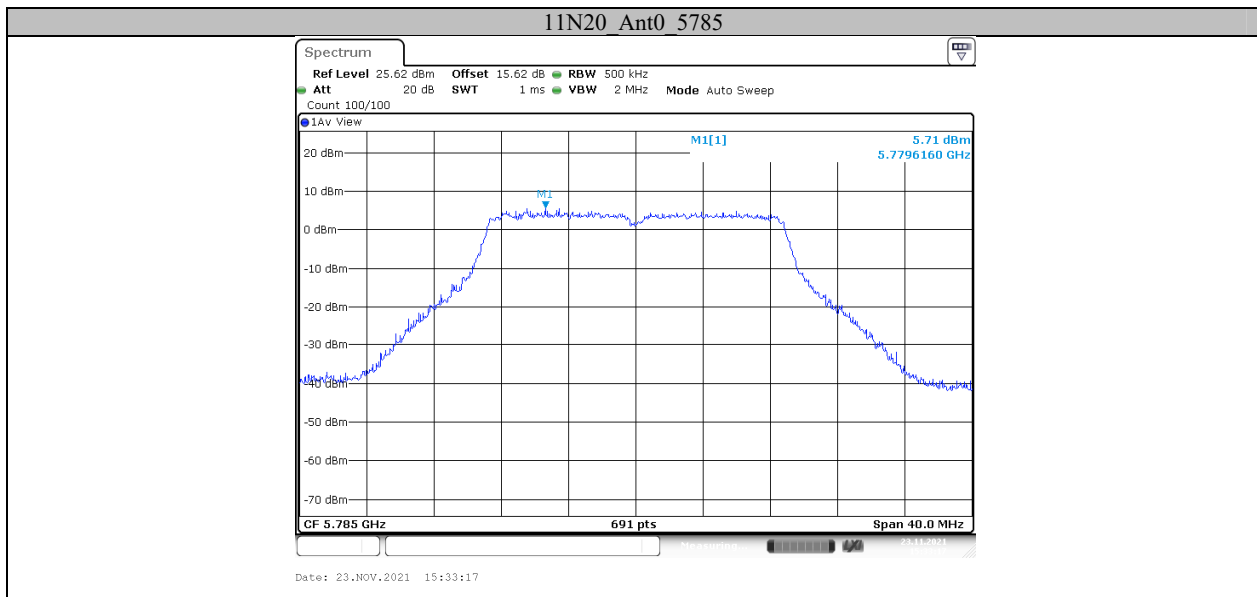


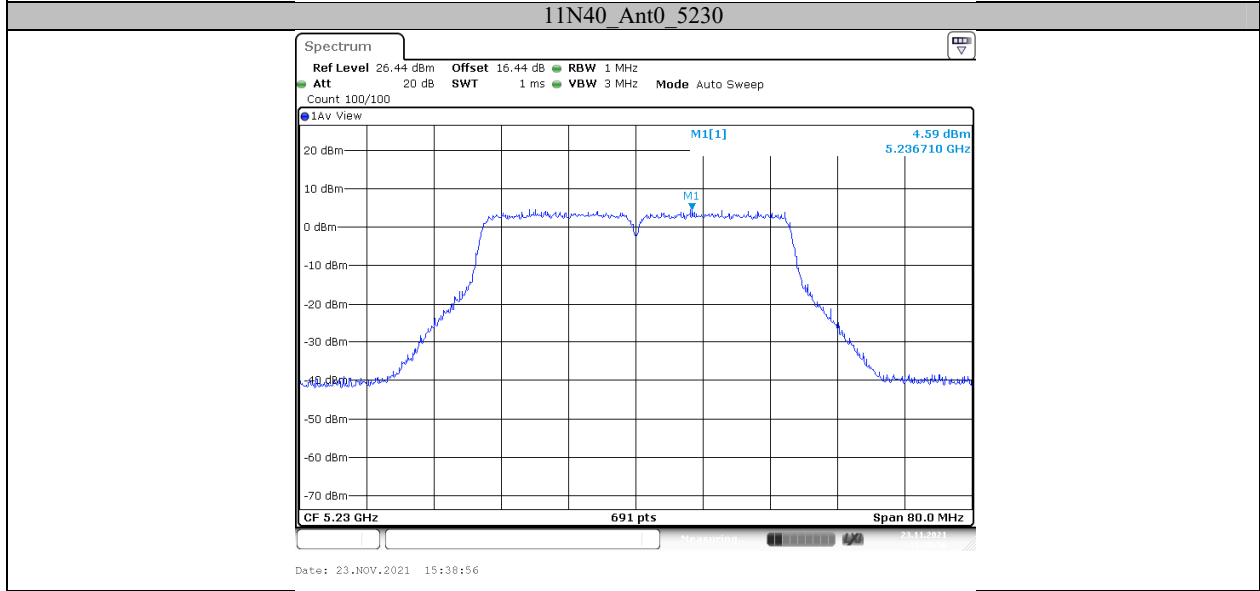
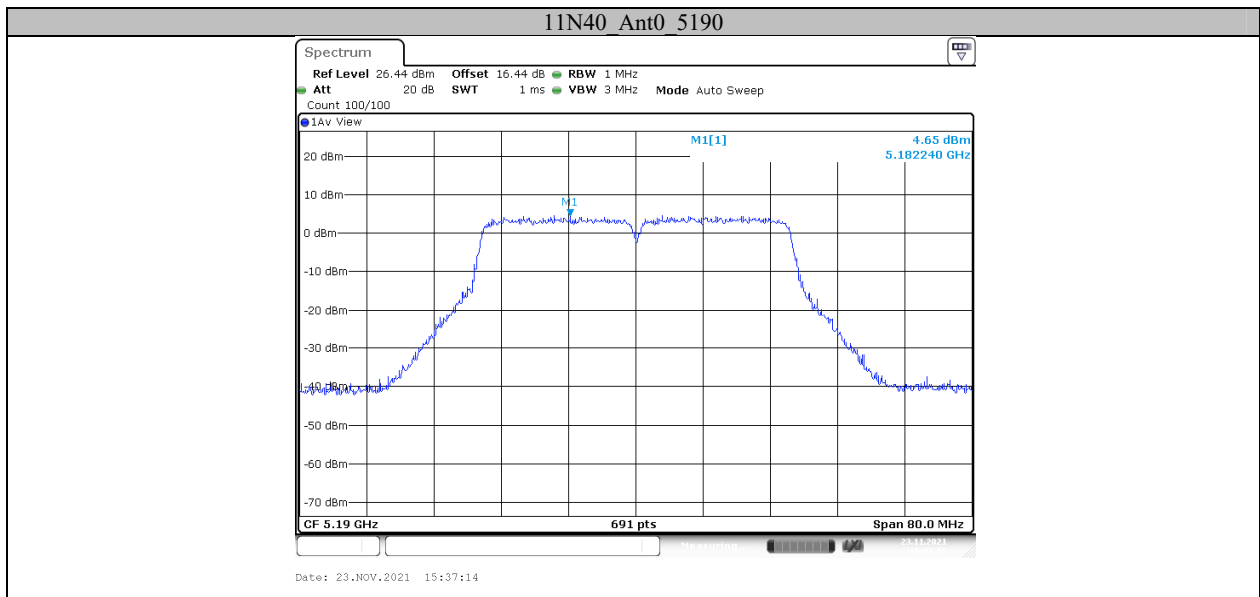


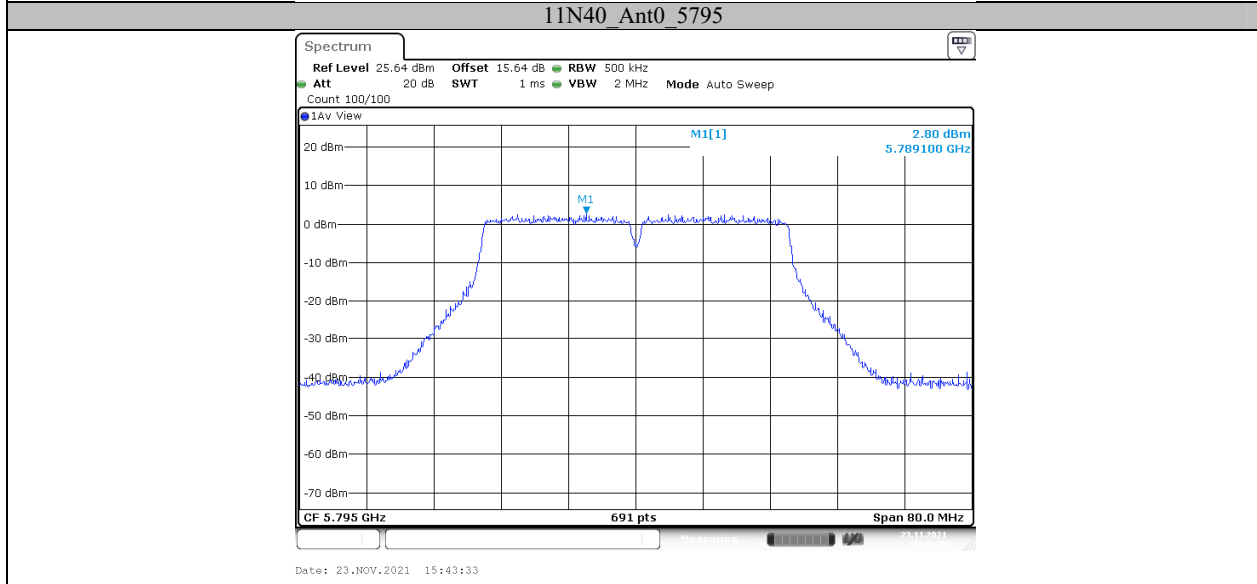
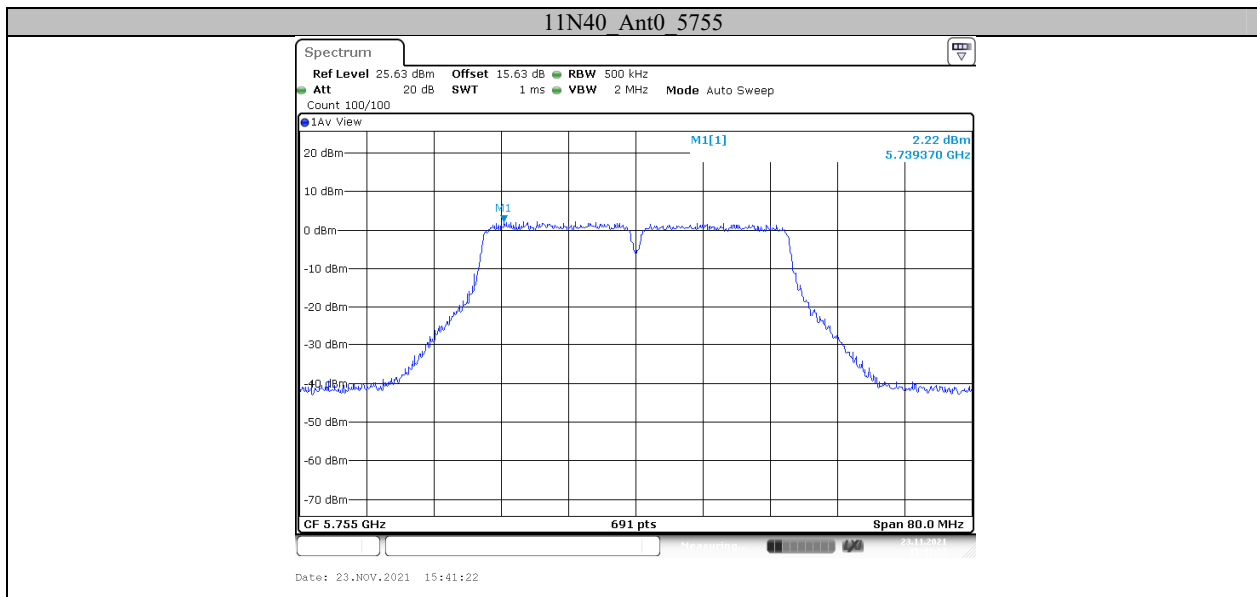


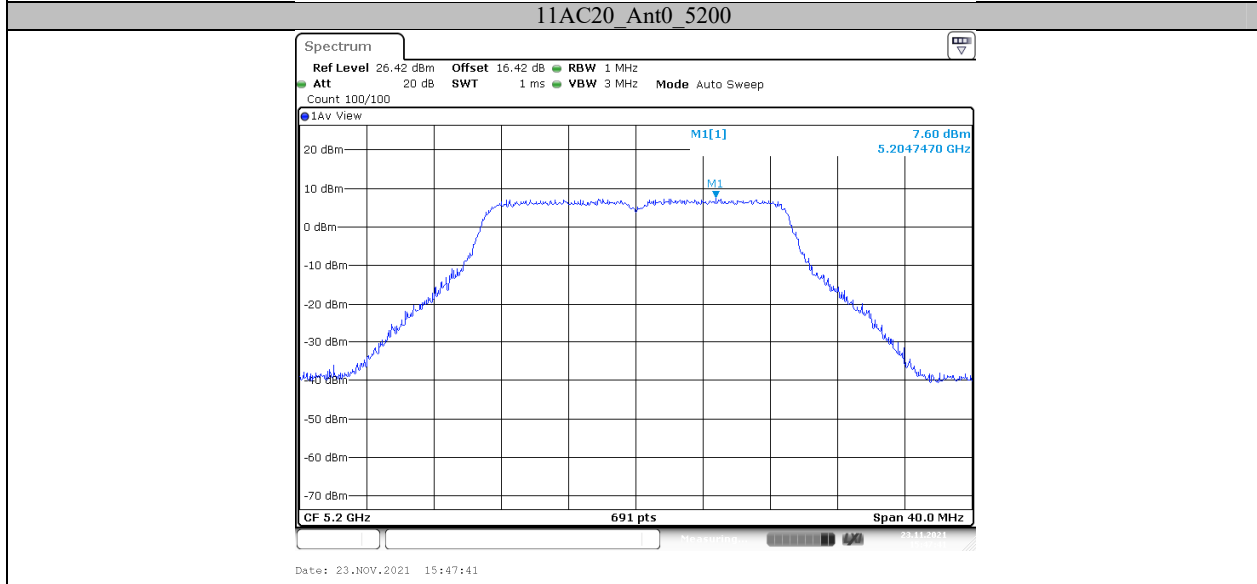
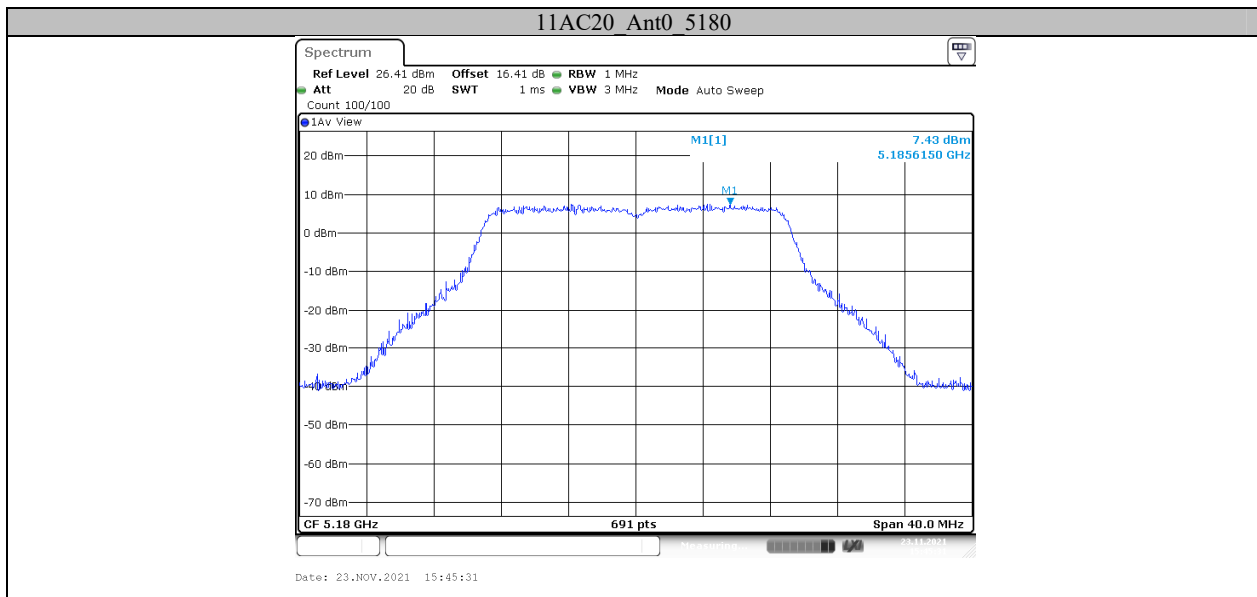


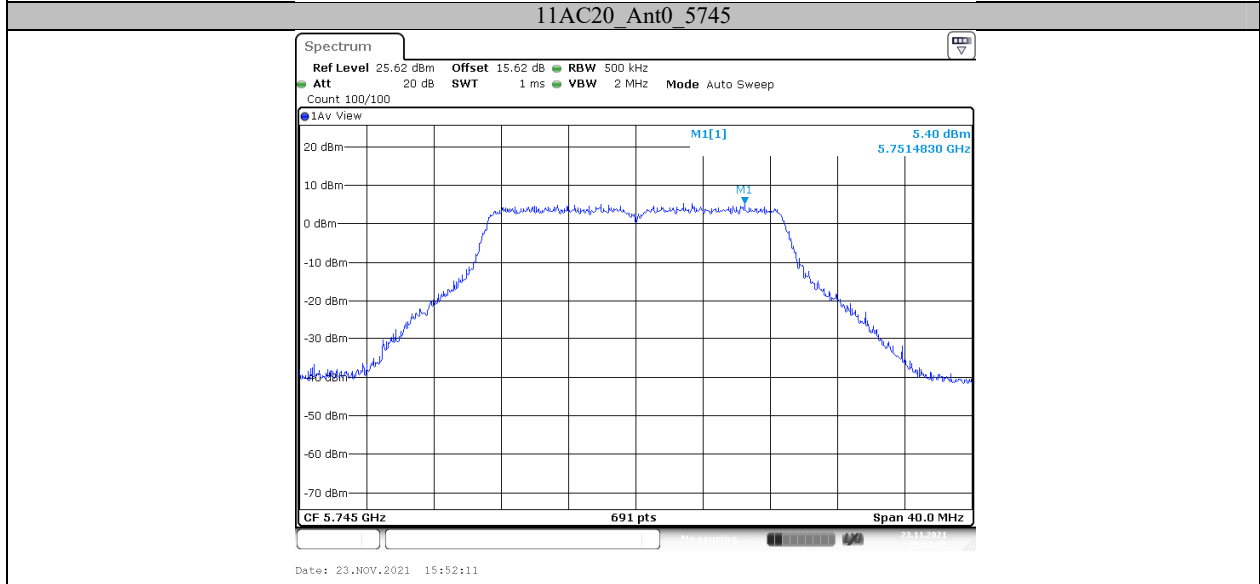
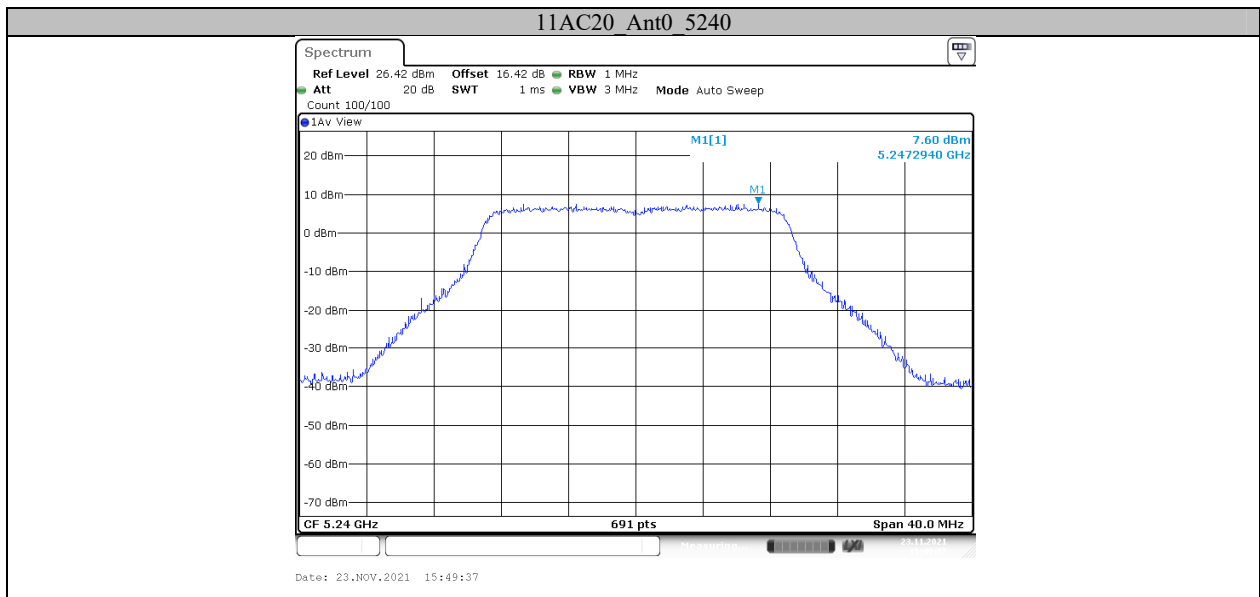


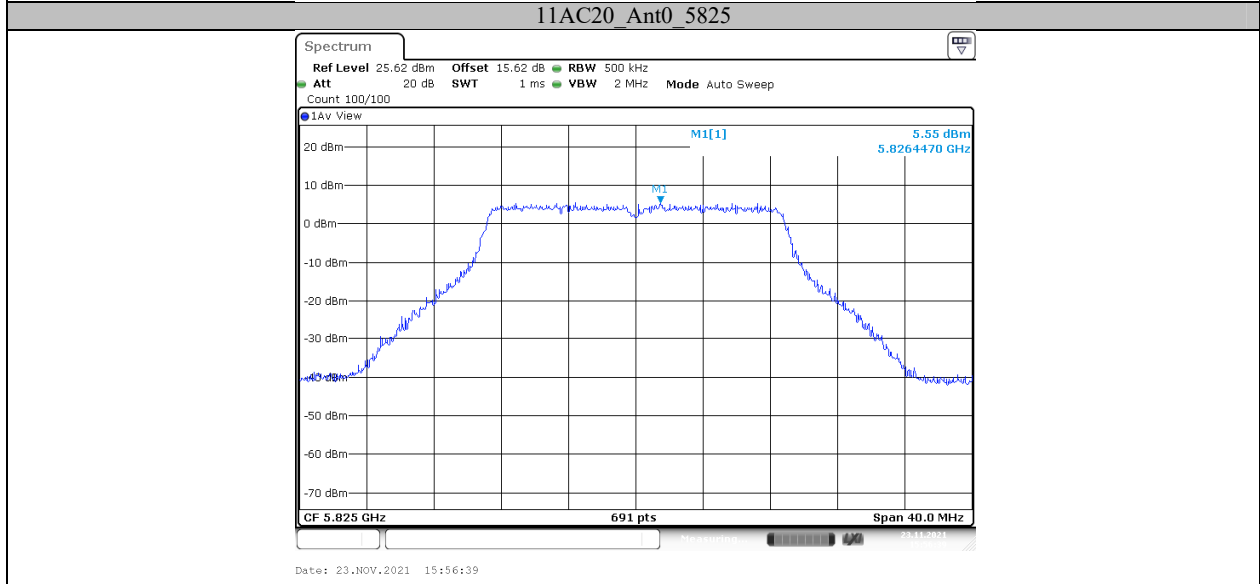
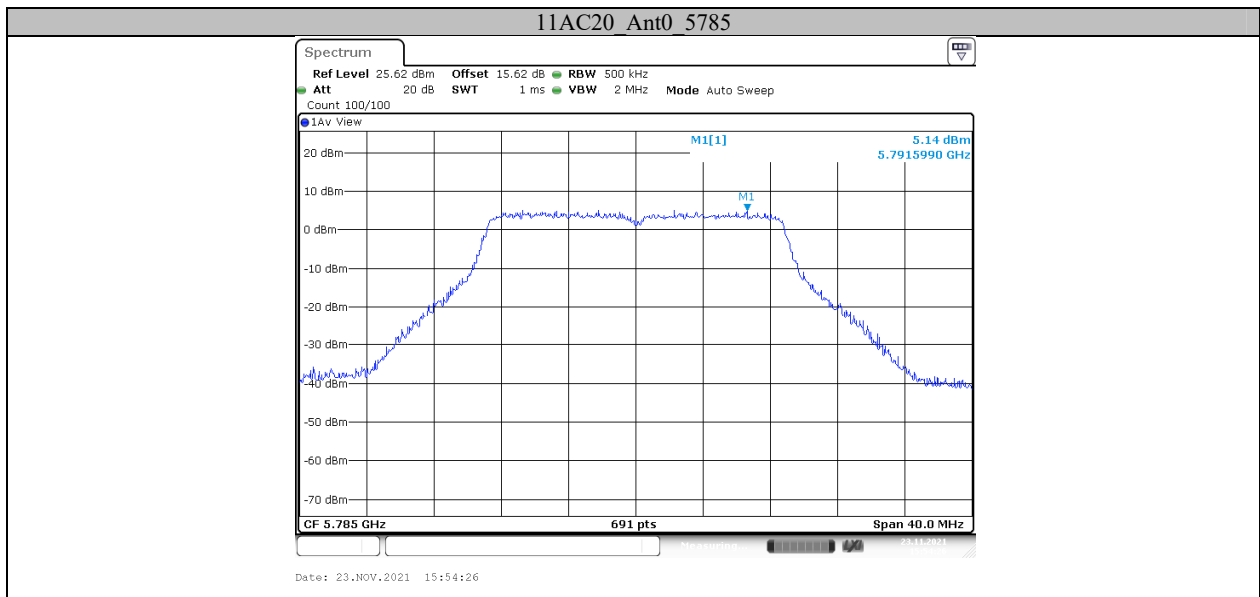


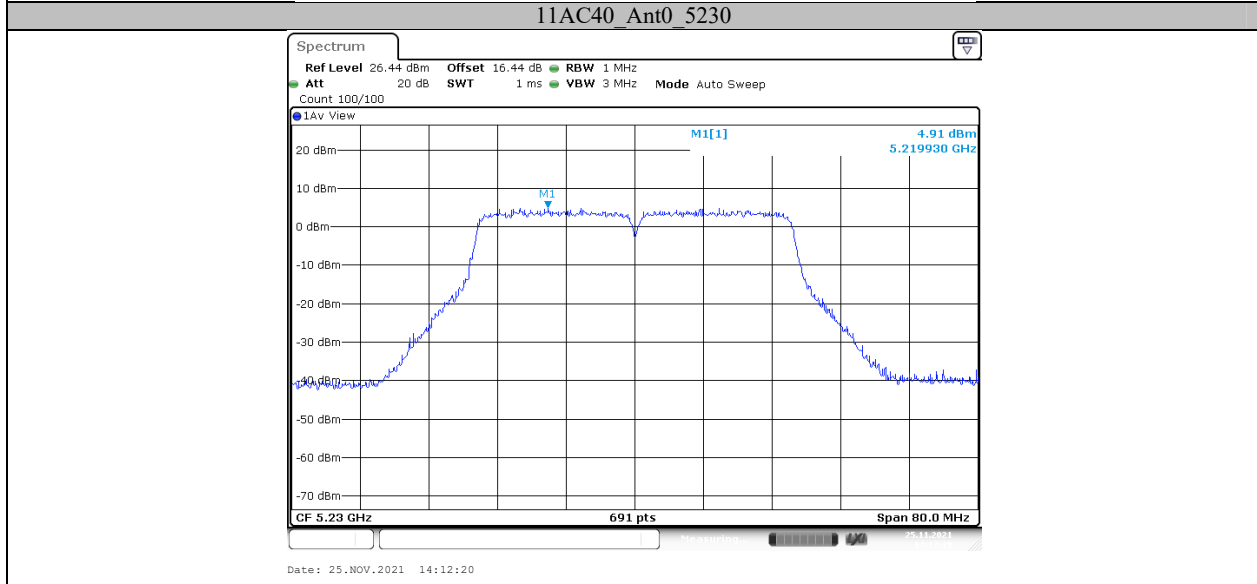
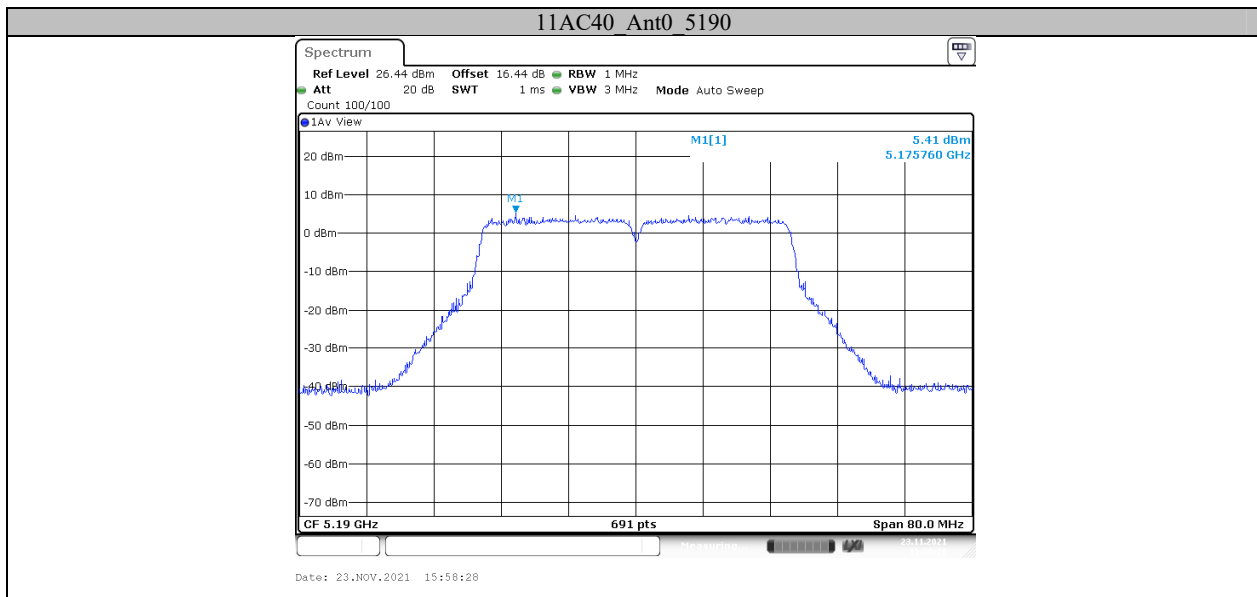


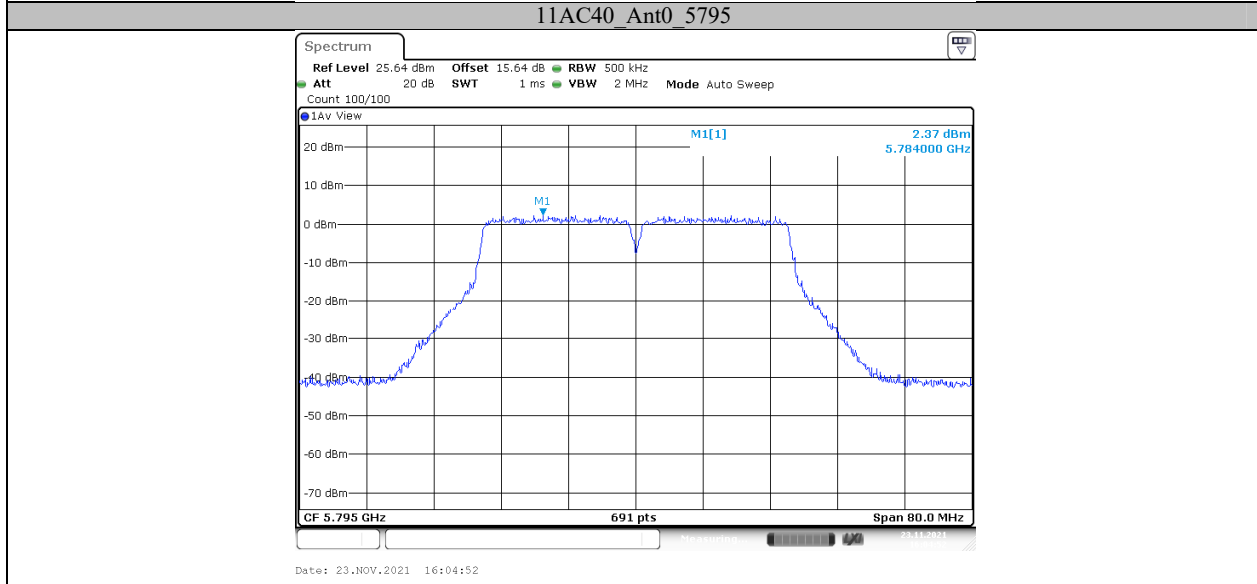
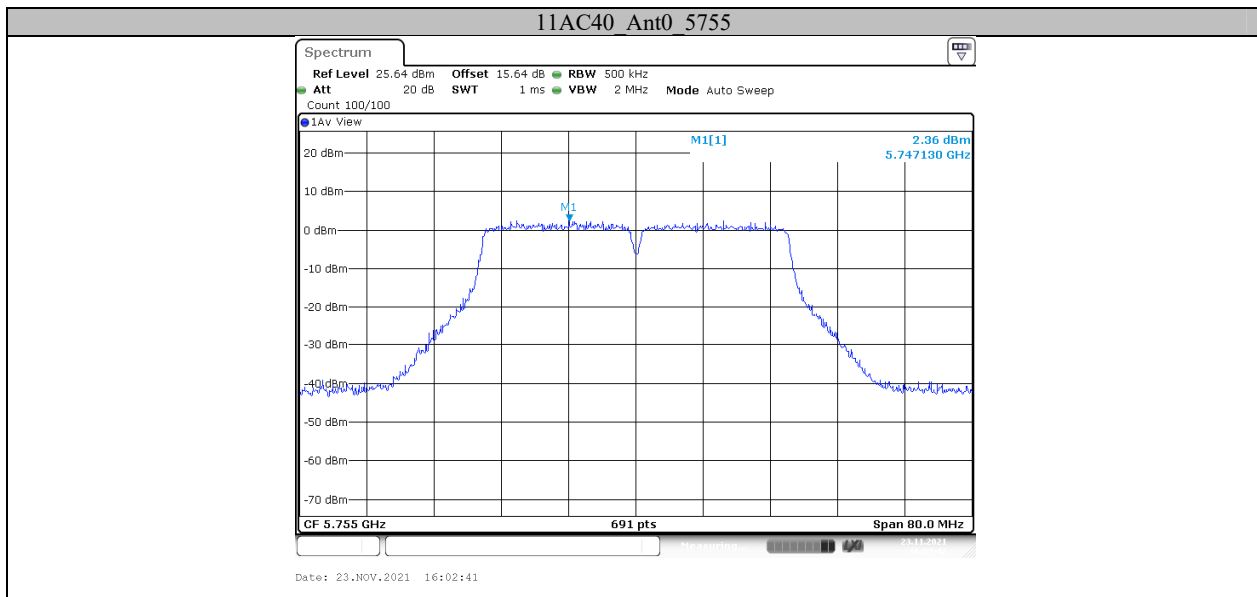


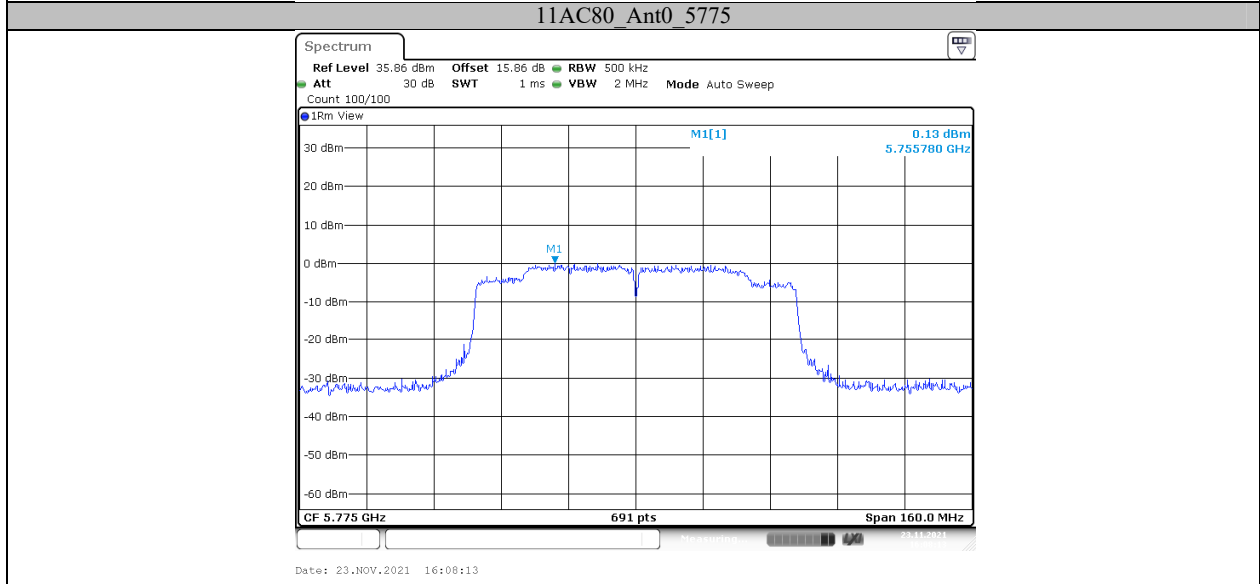
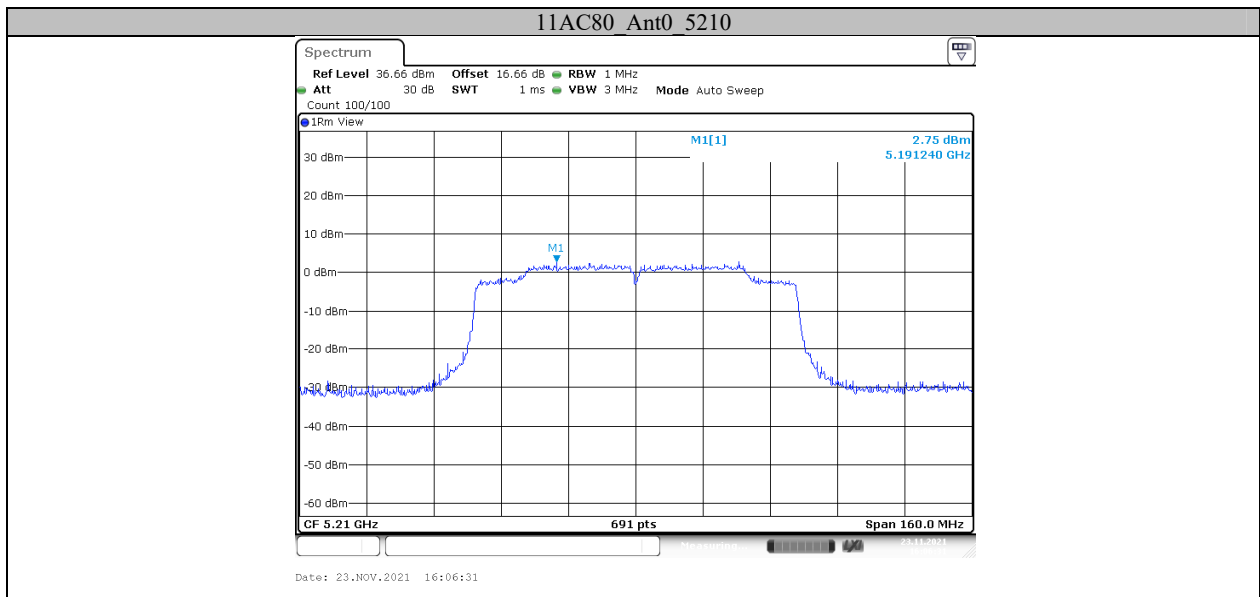


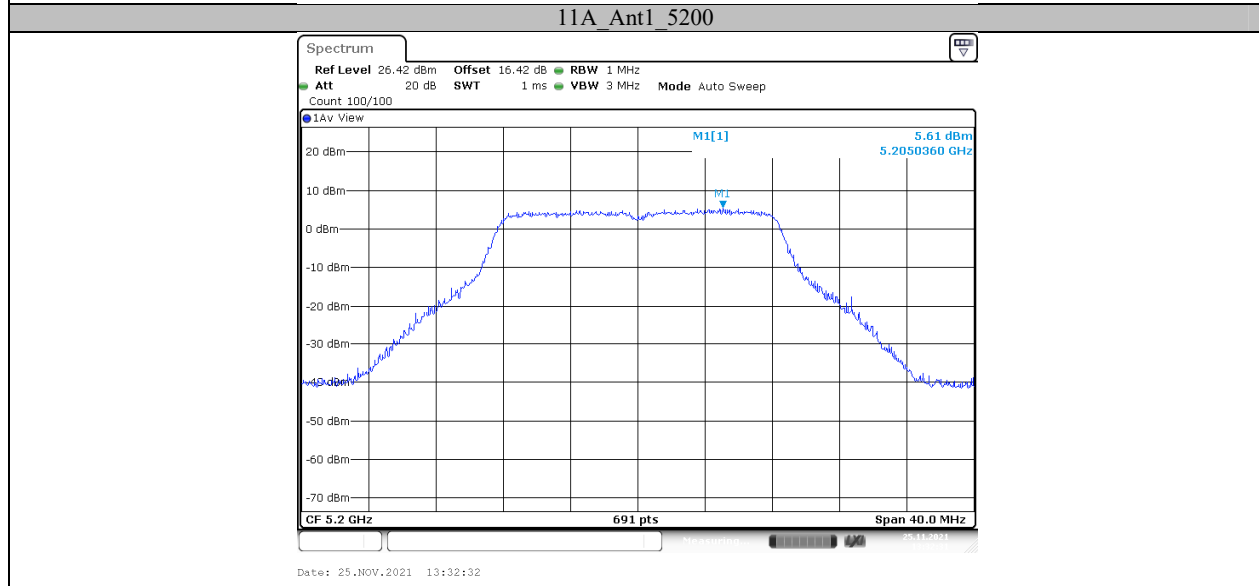
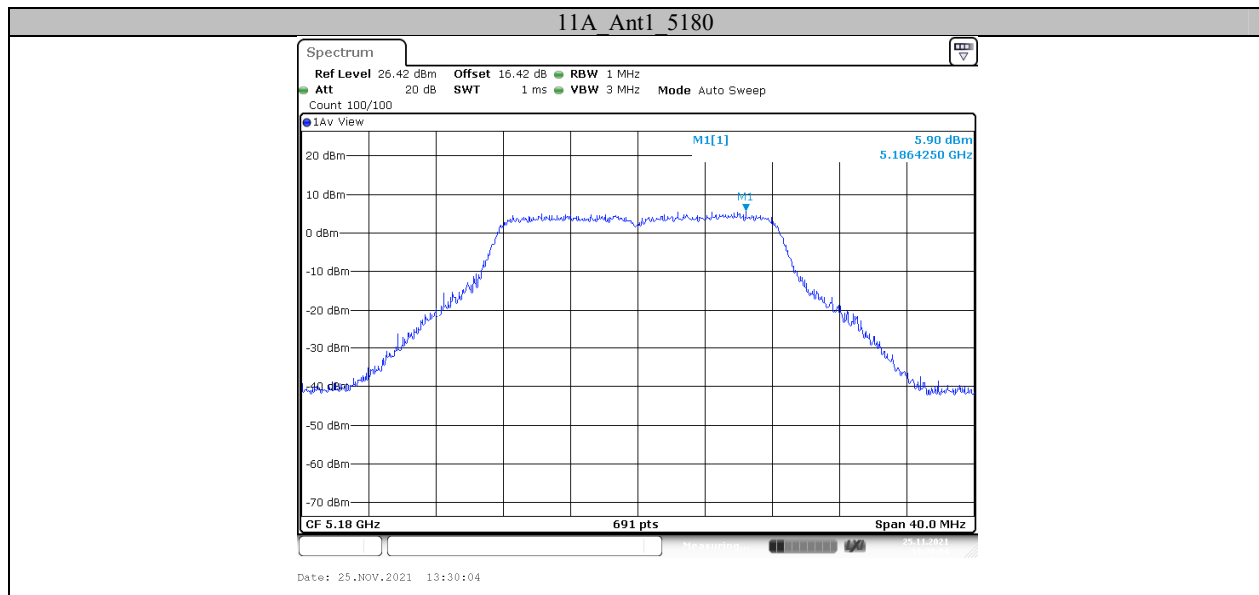


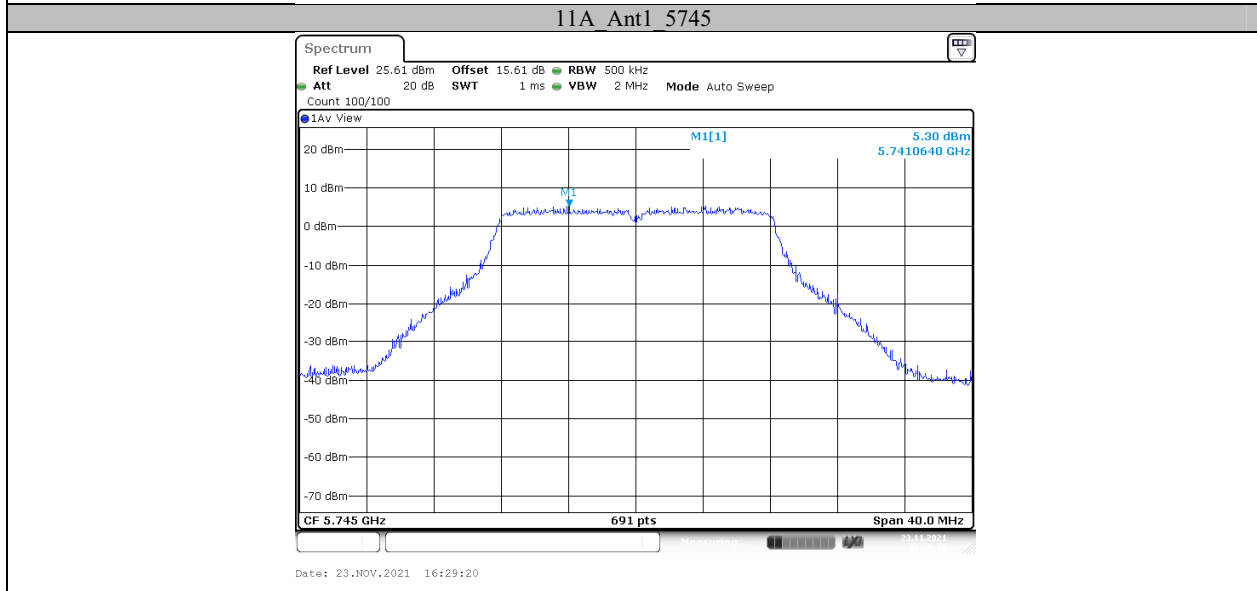
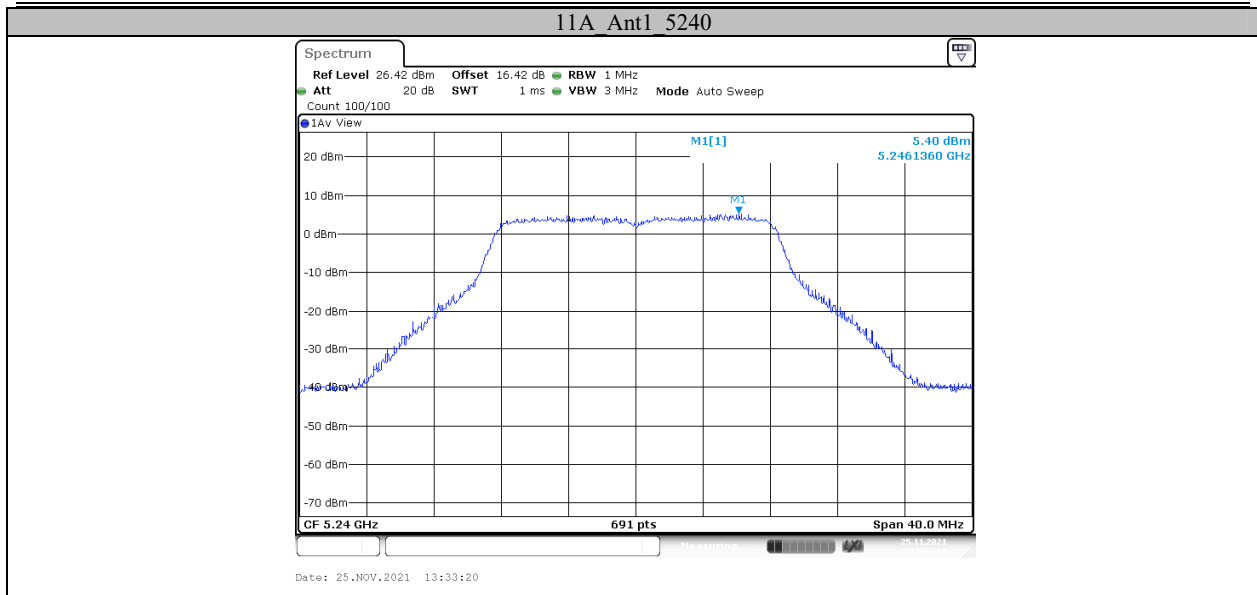


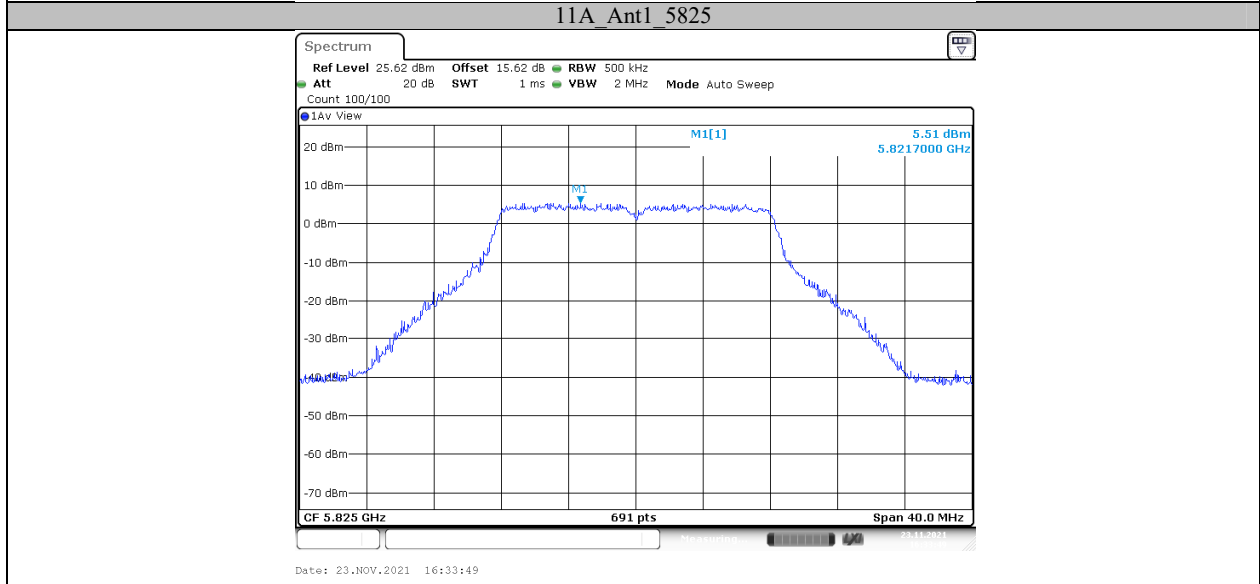
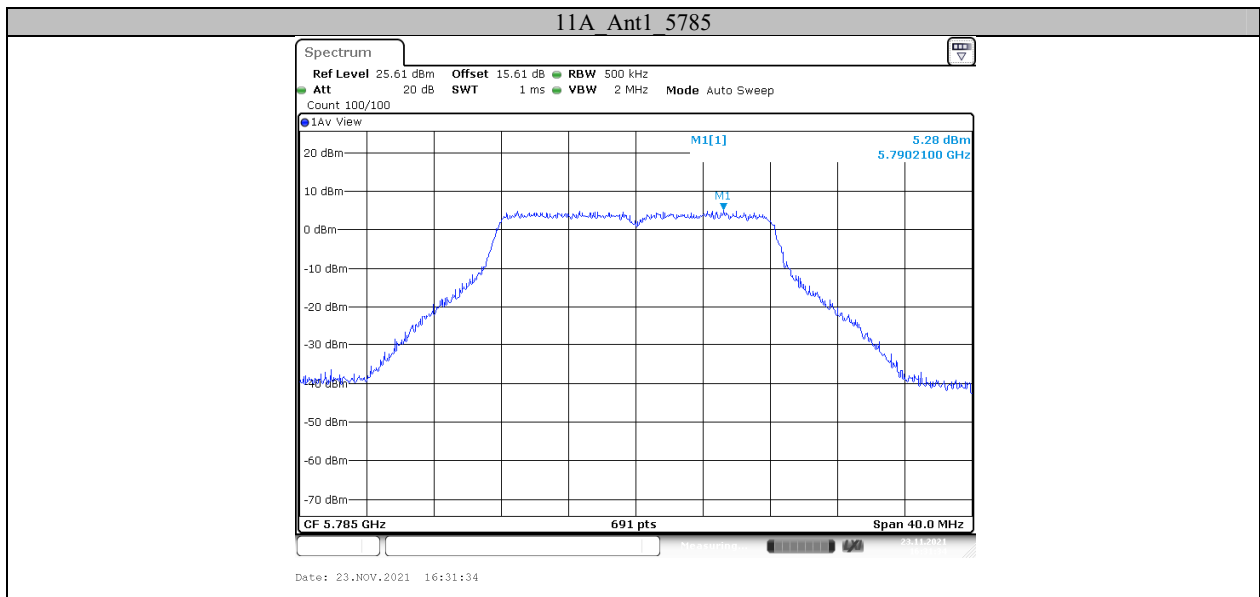


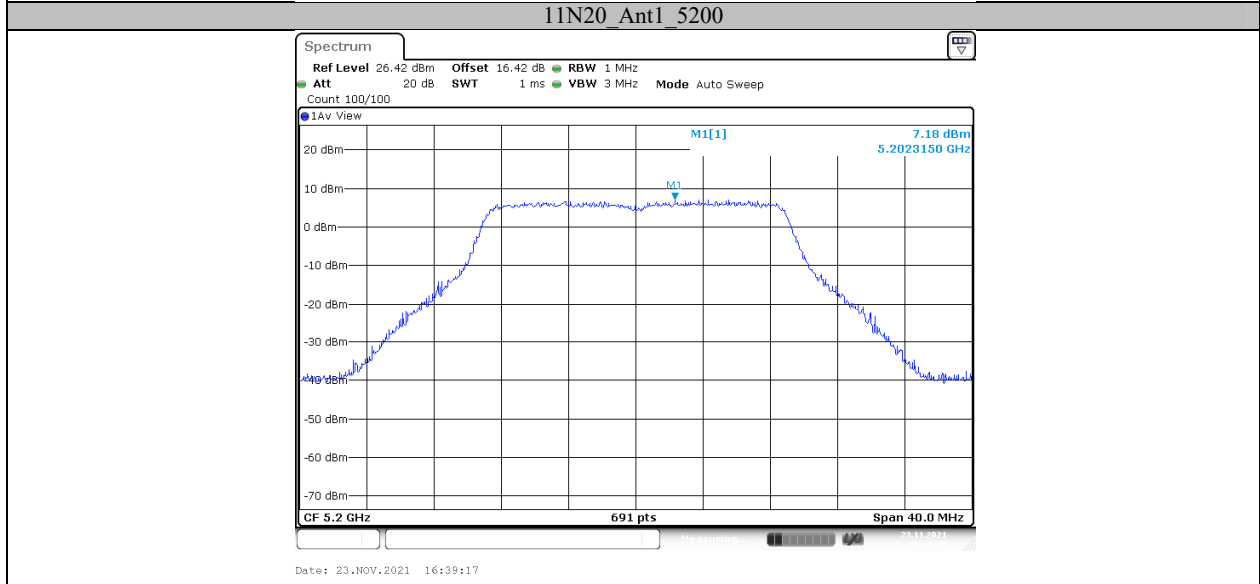
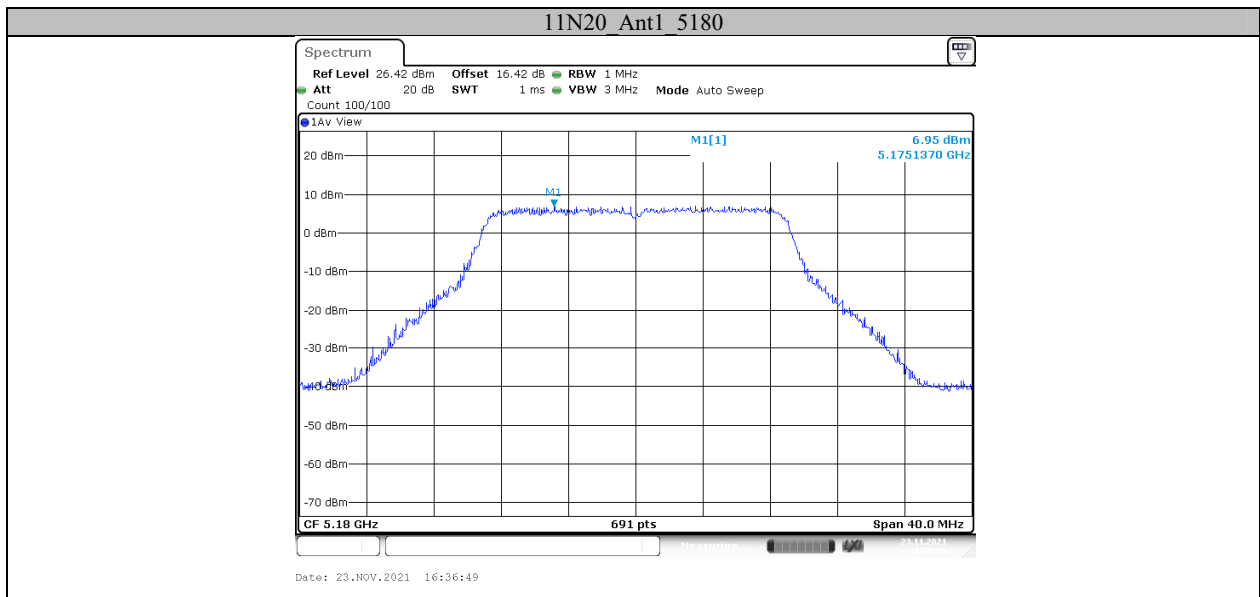


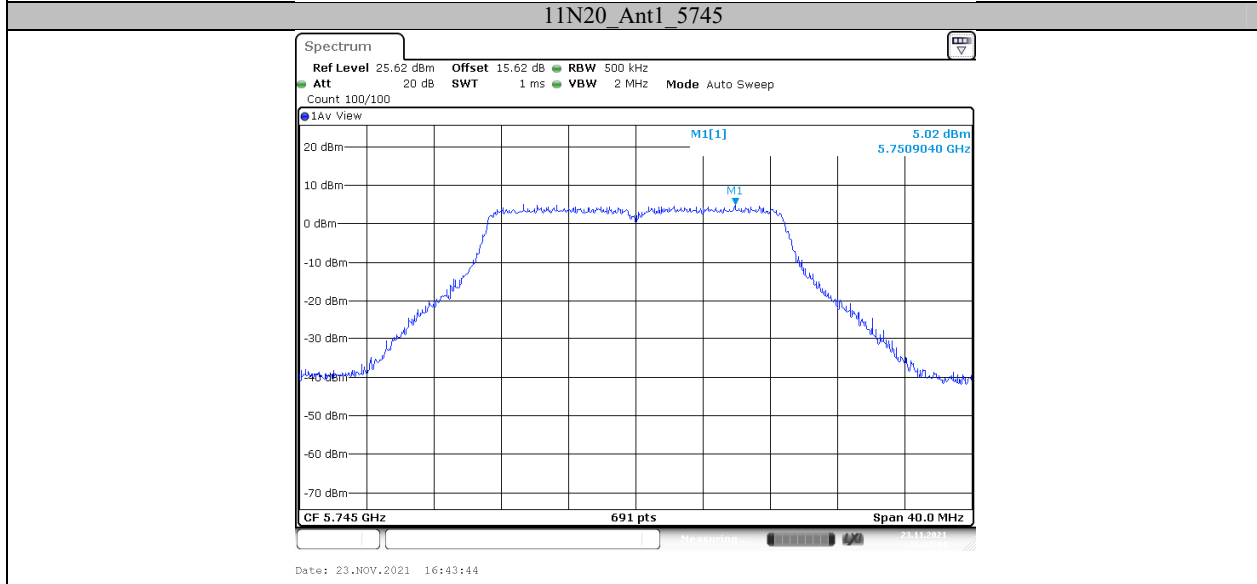
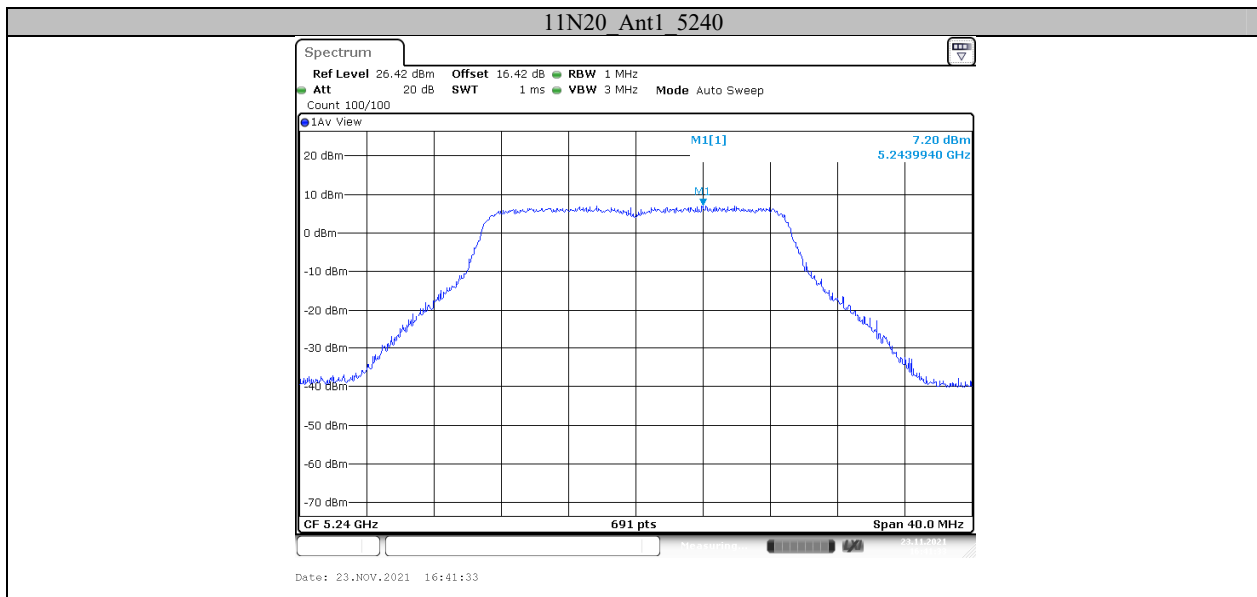


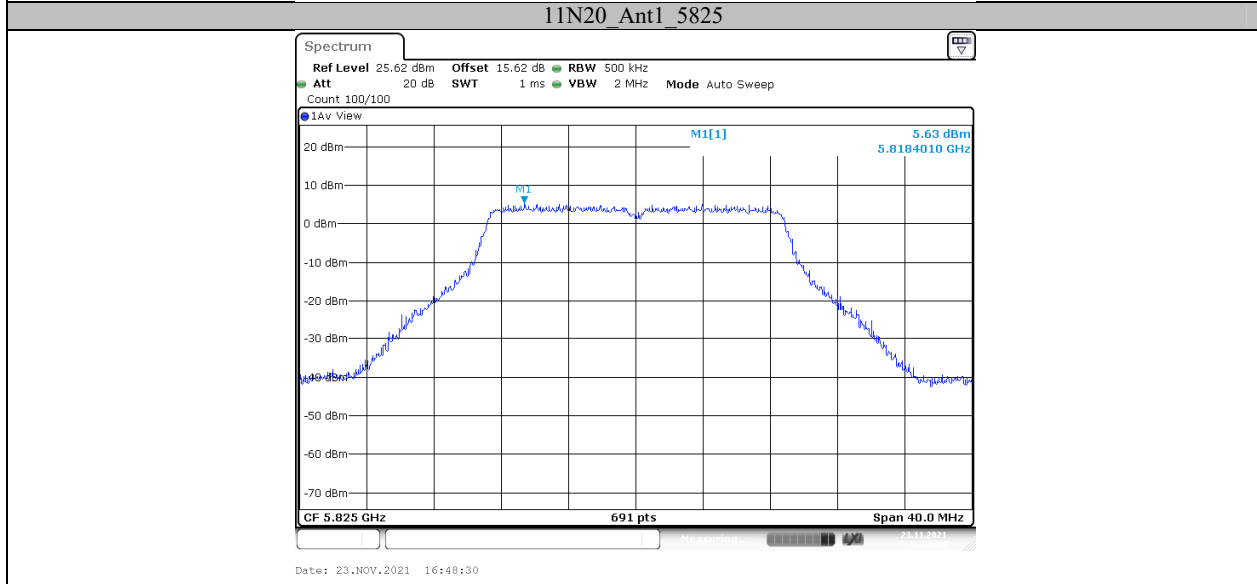
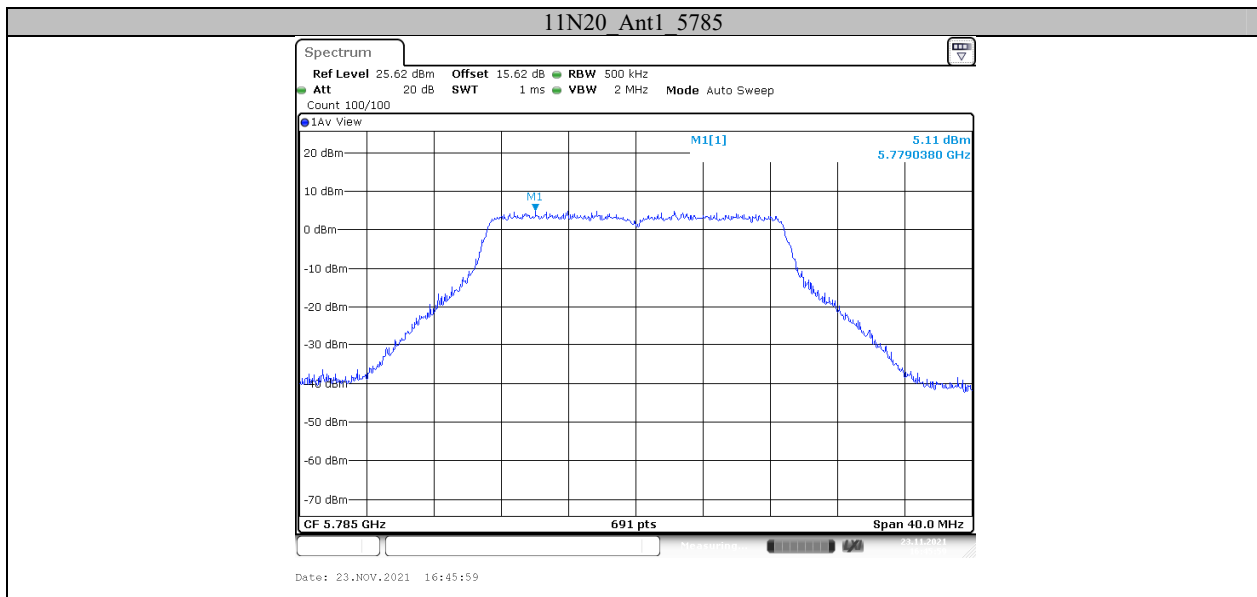


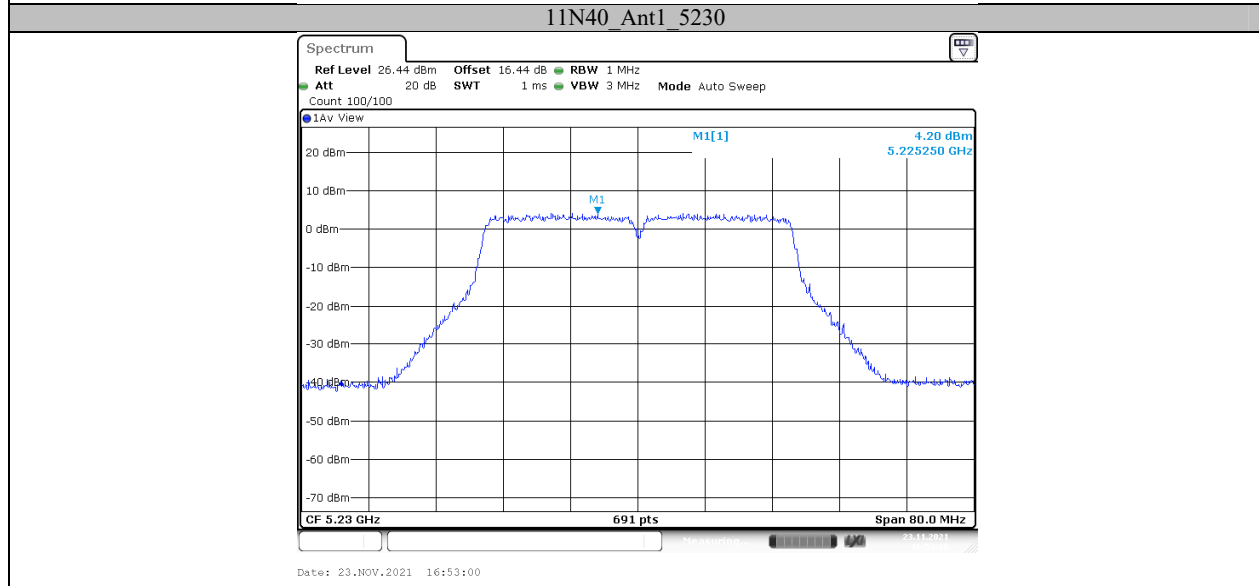
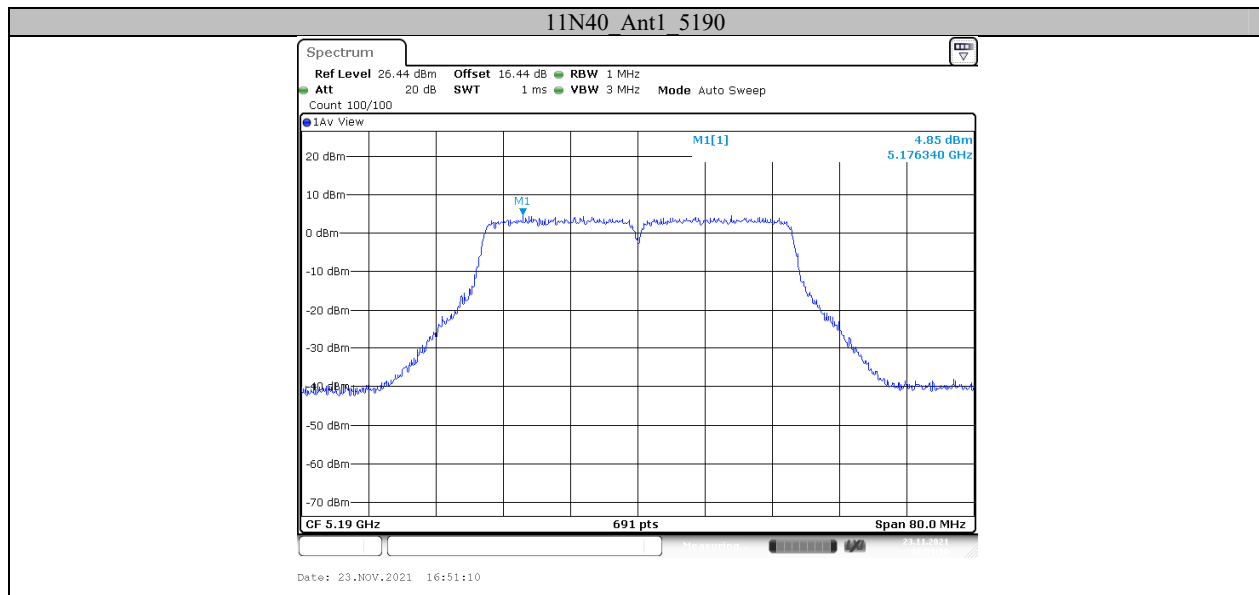


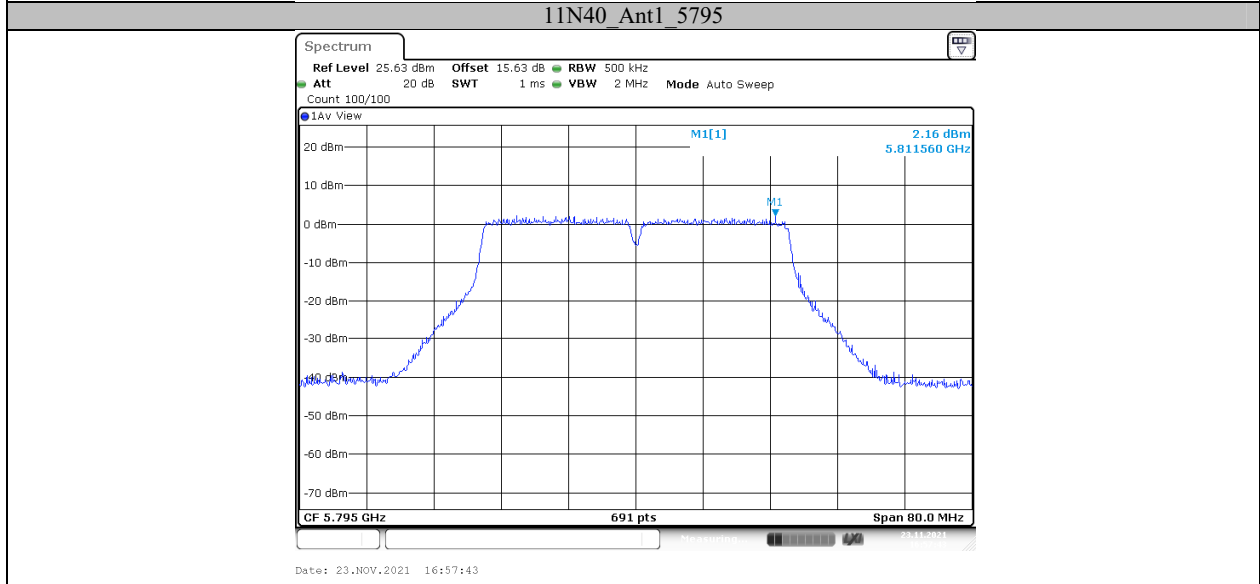
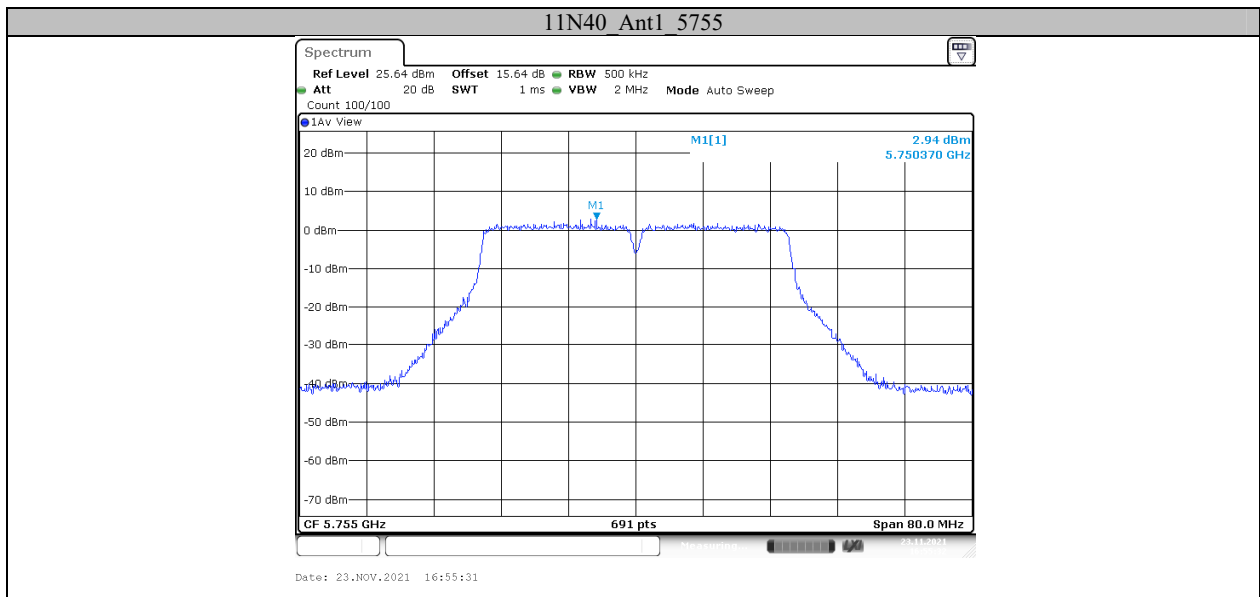


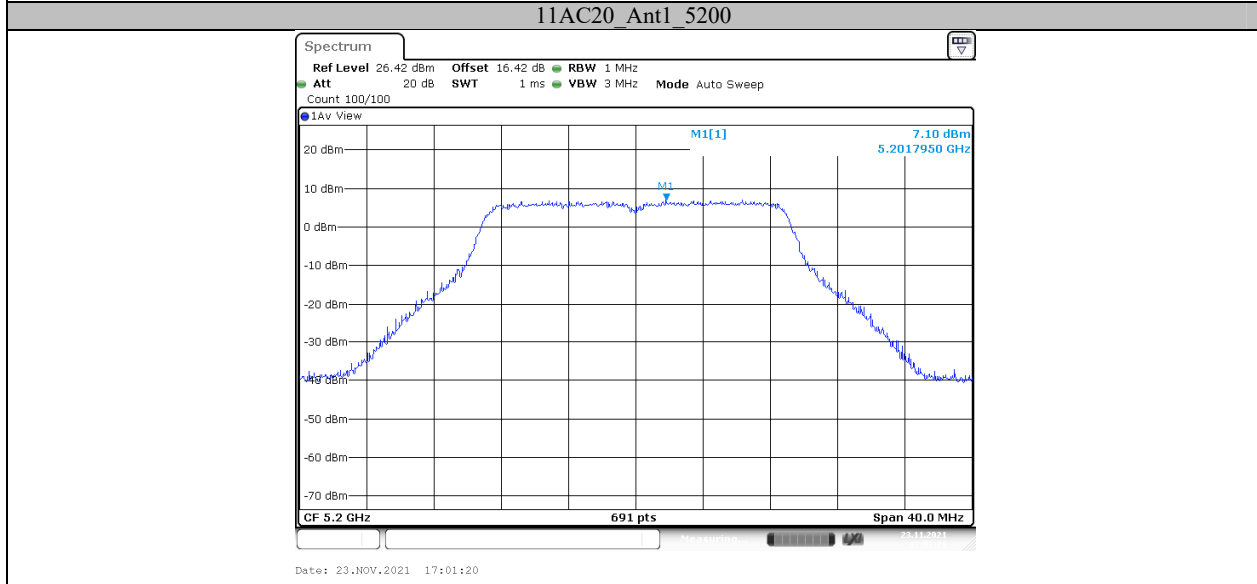
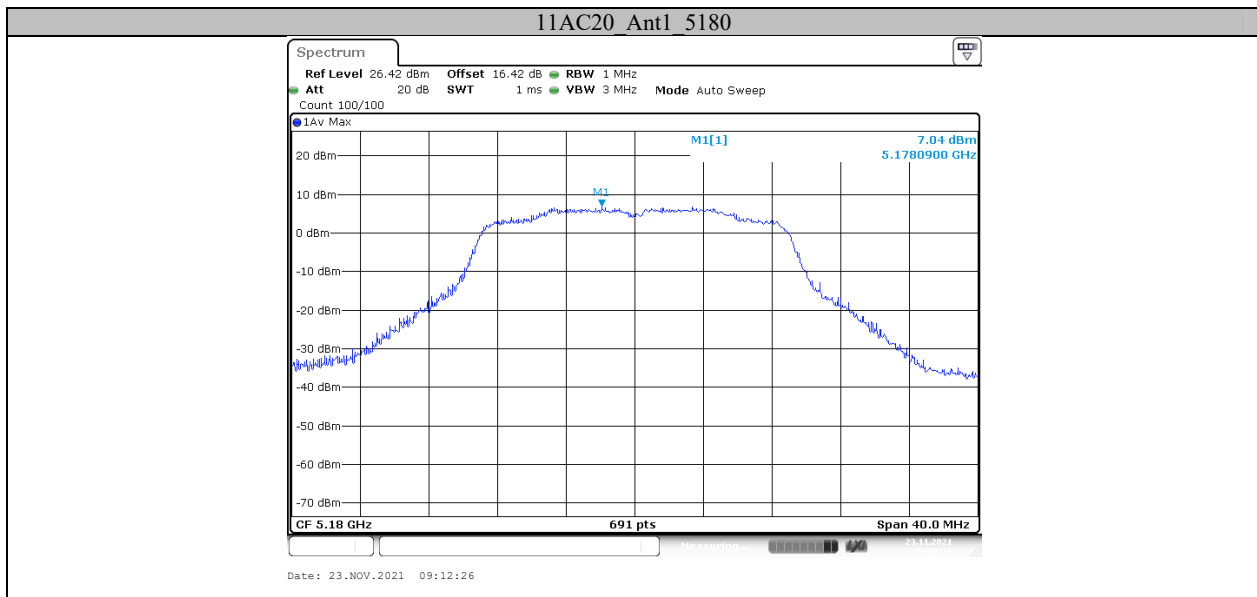


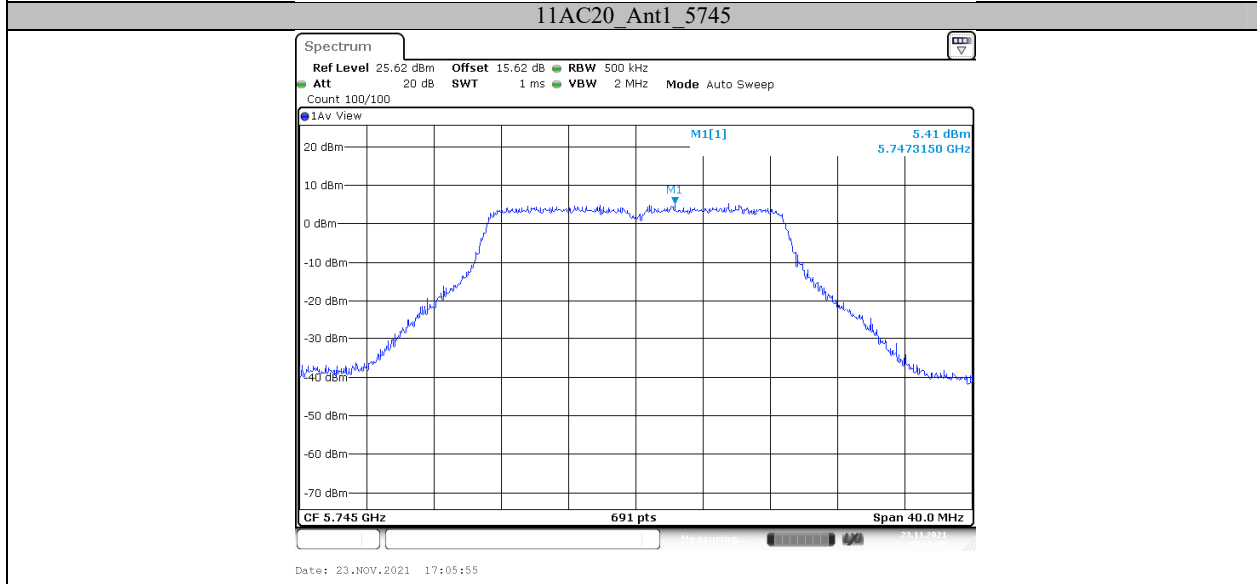
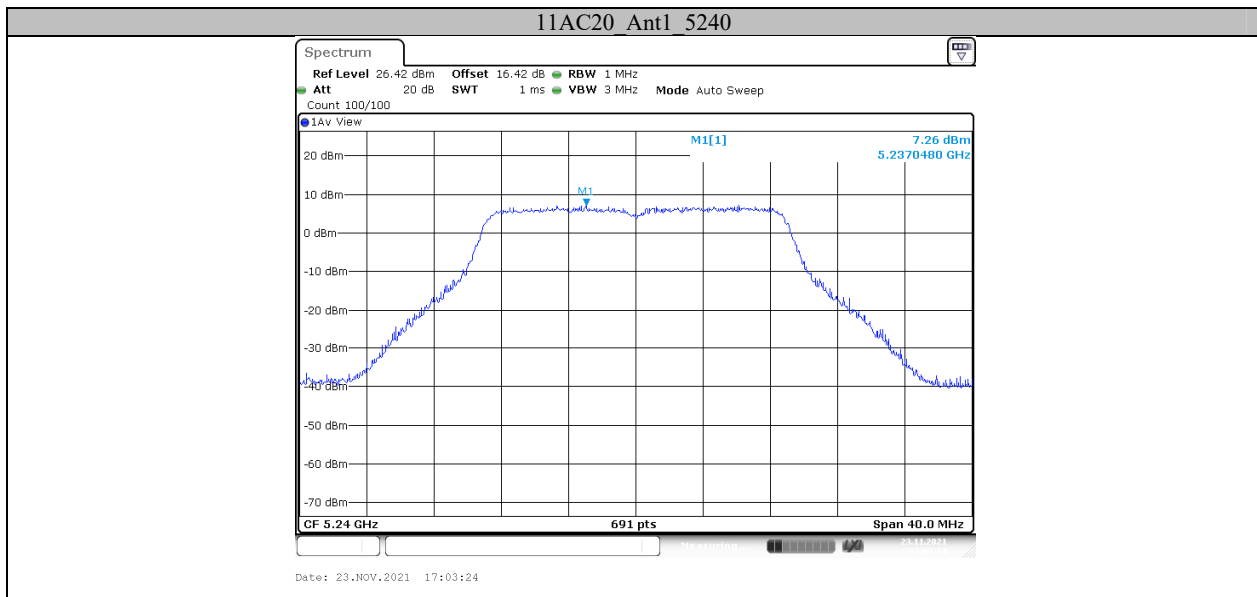


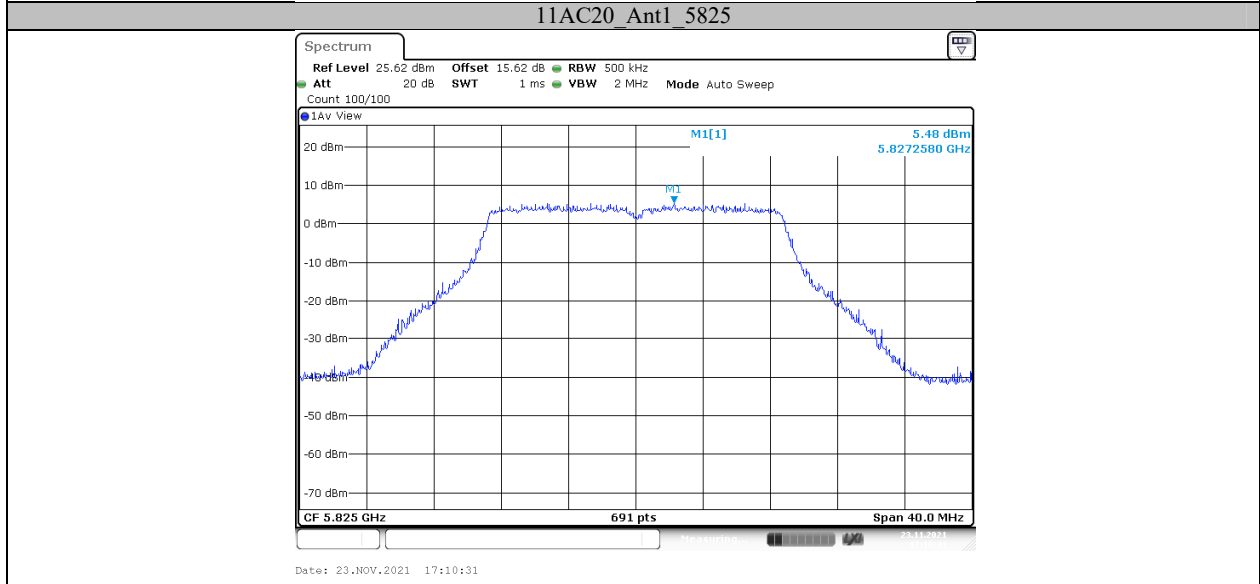
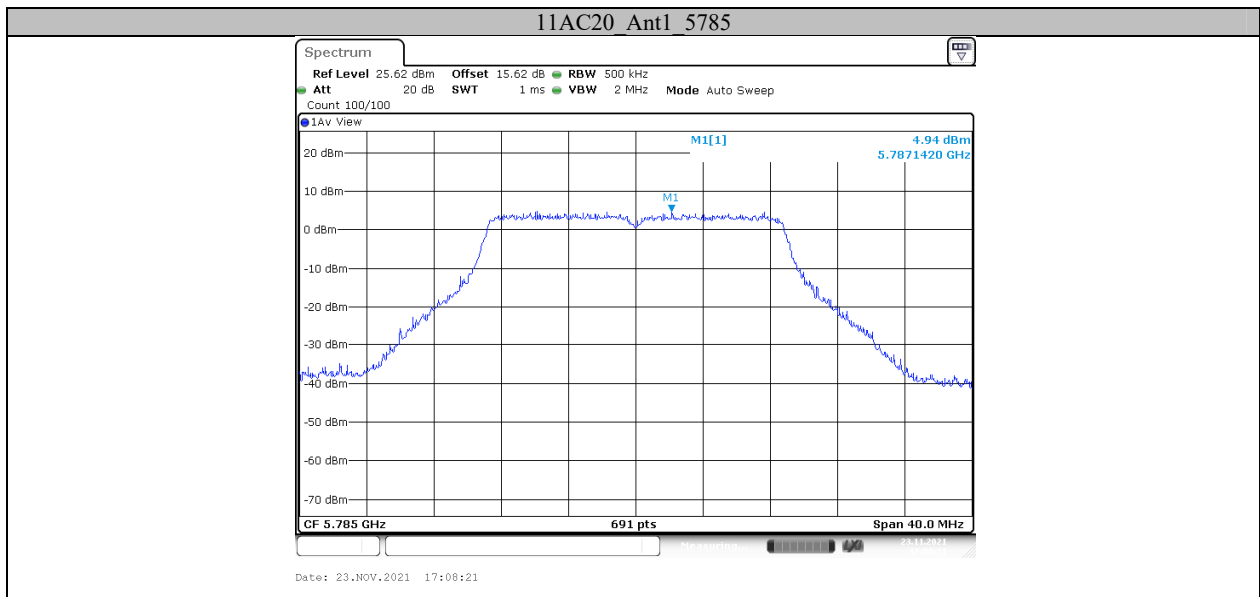


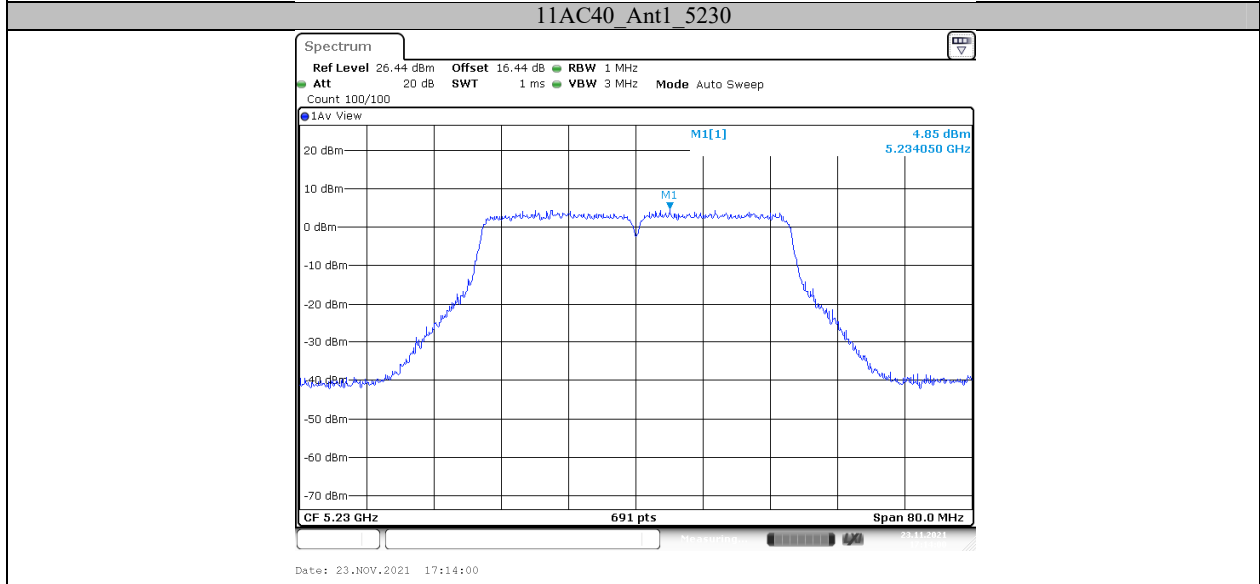
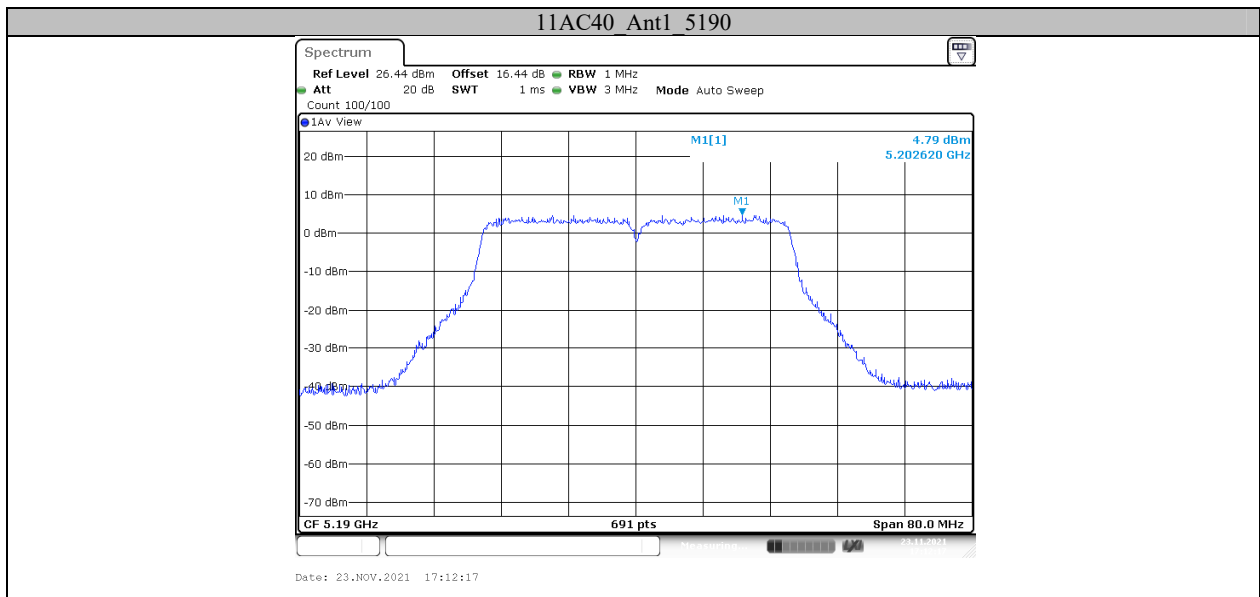


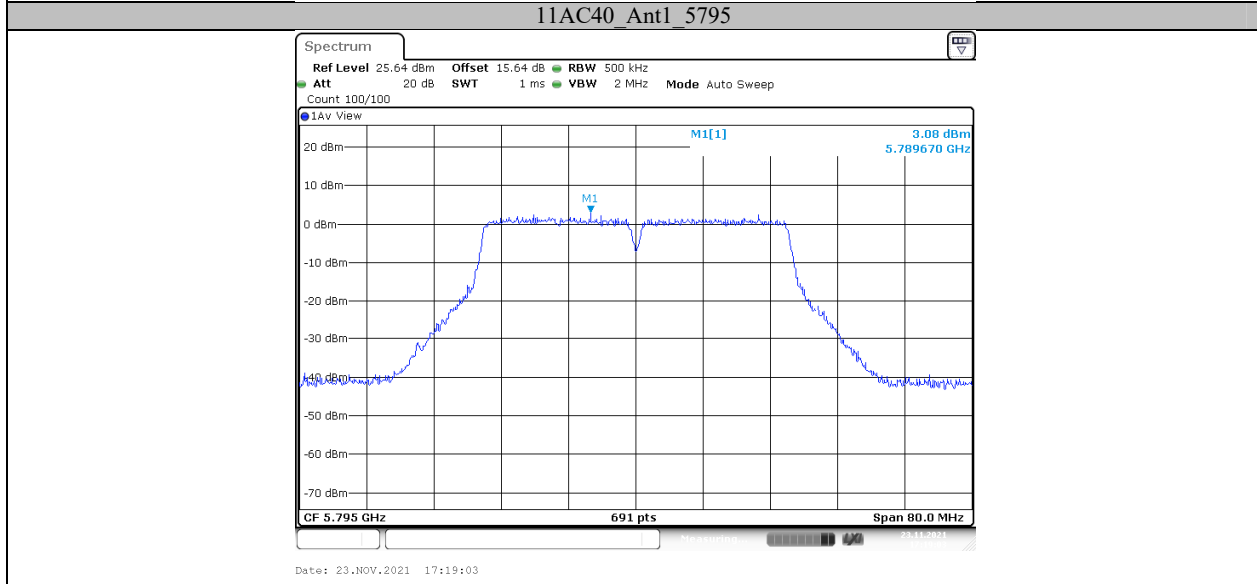
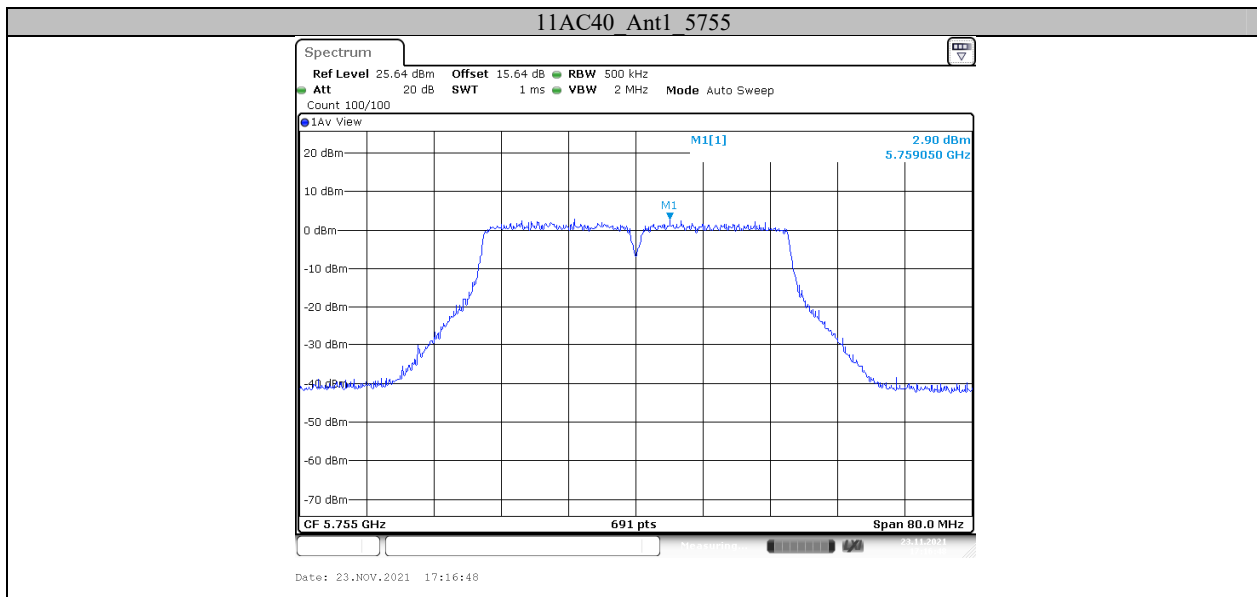


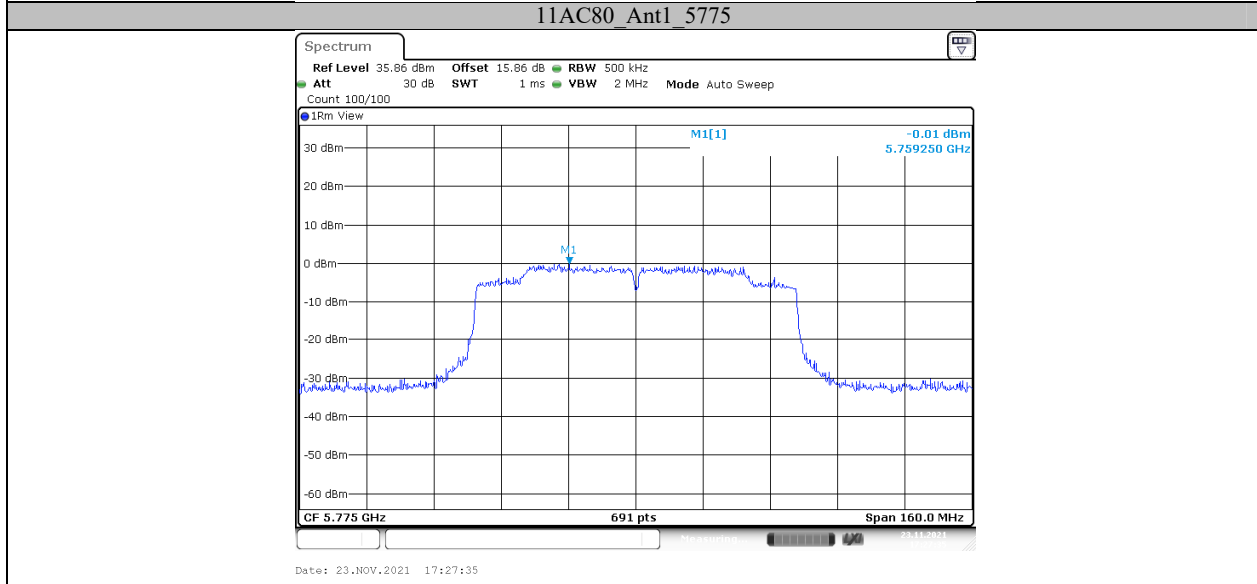
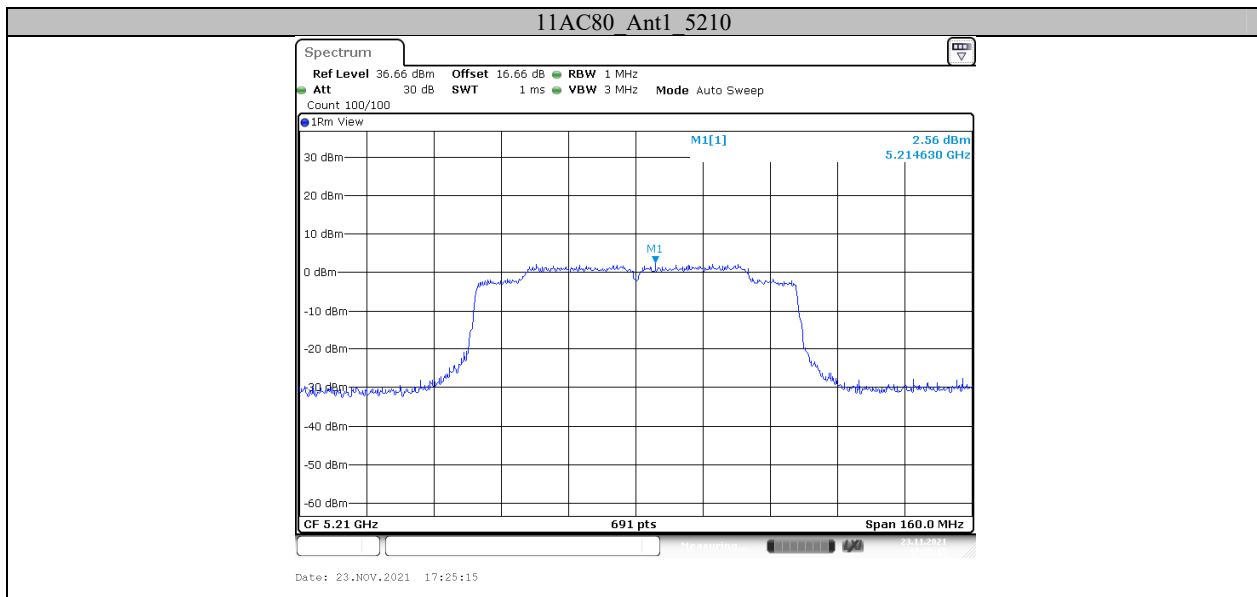










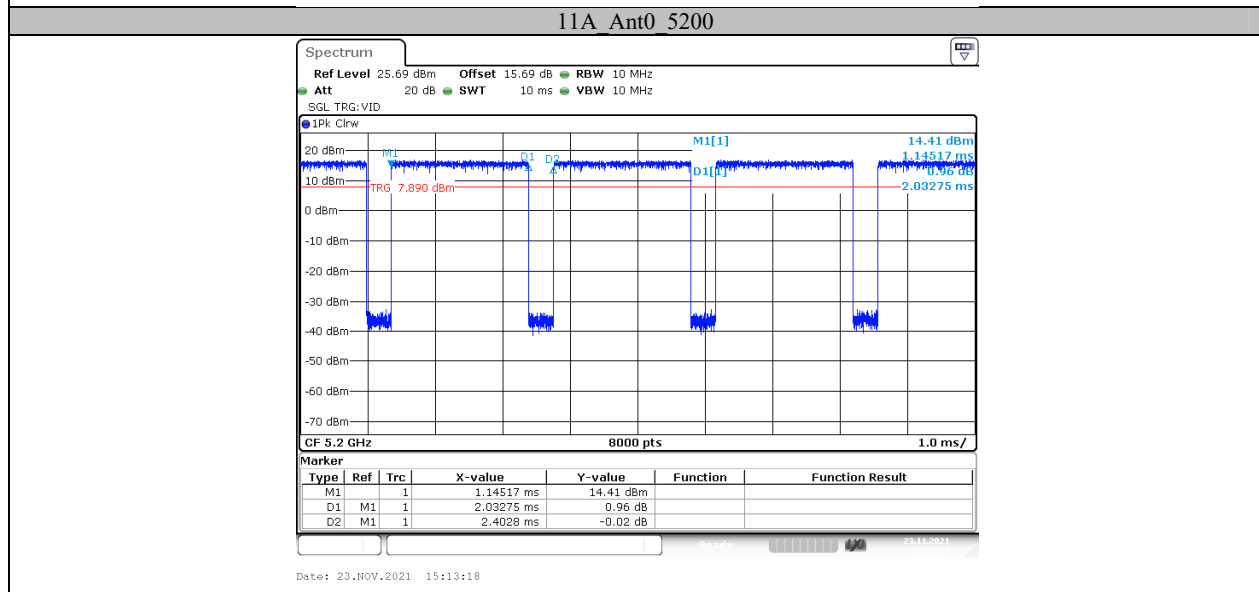
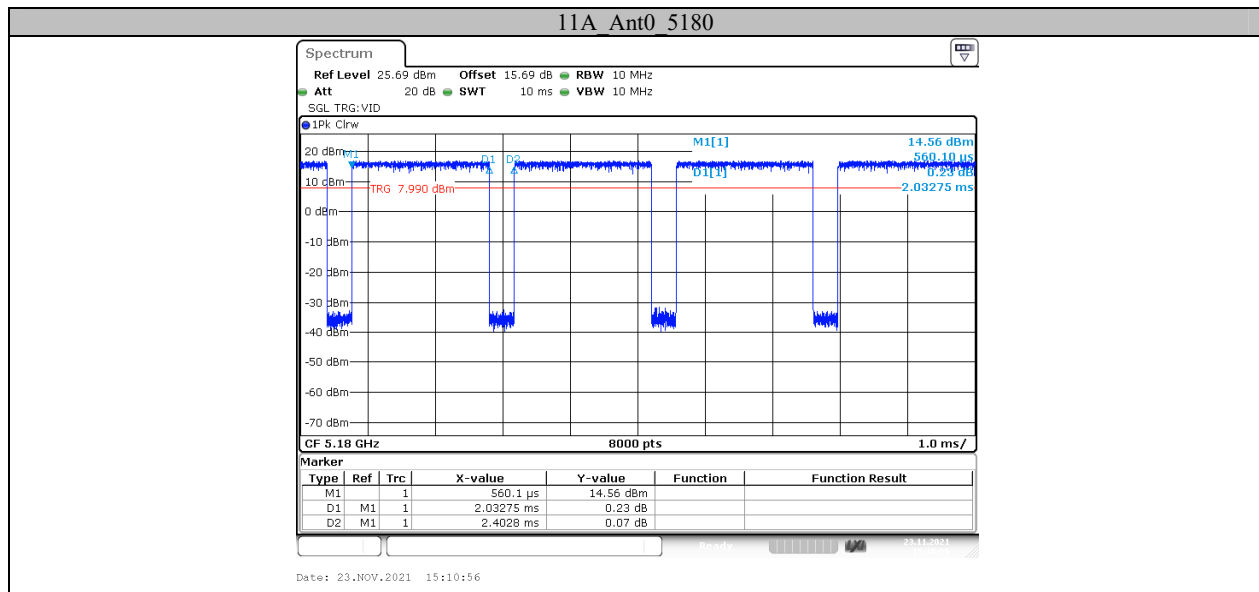


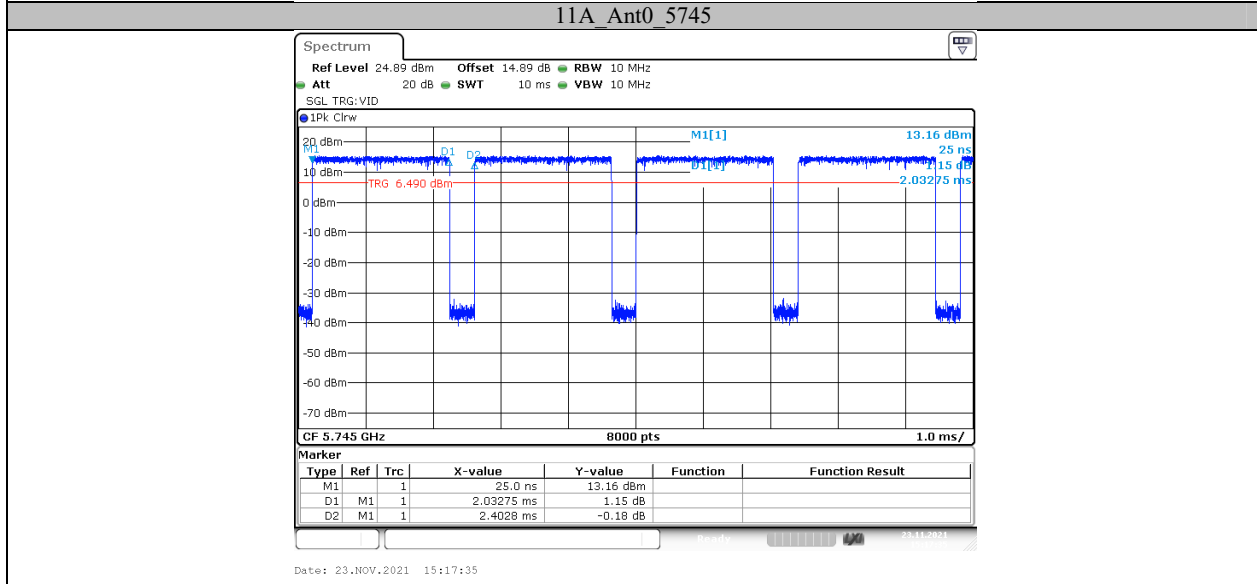
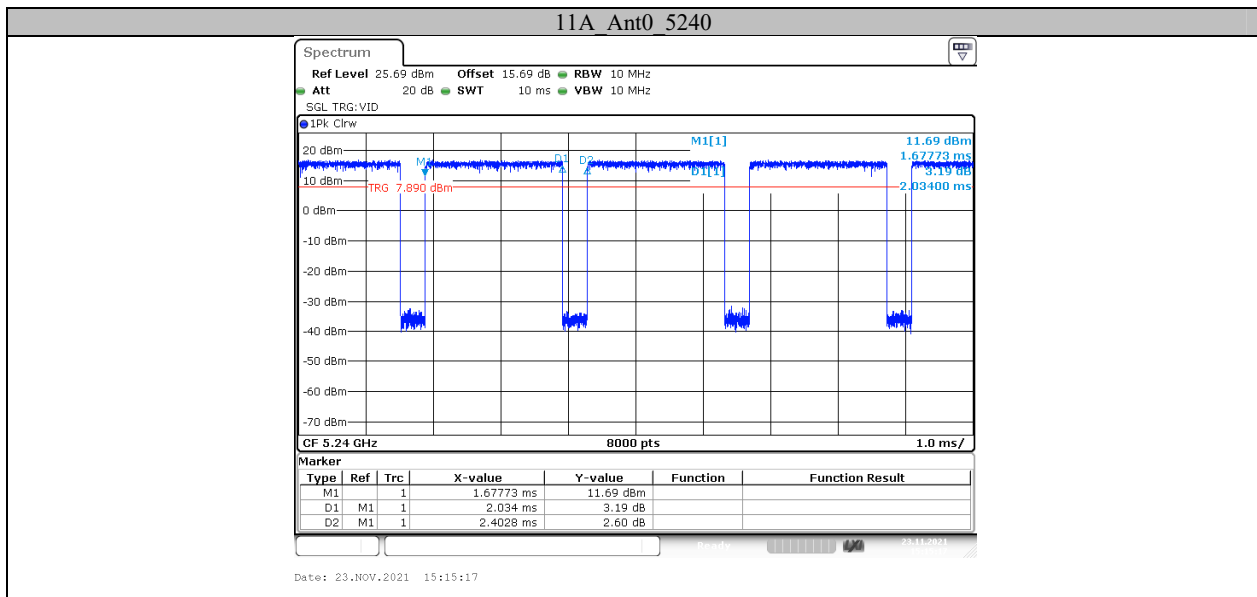
Appendix D: Duty Cycle Test Result

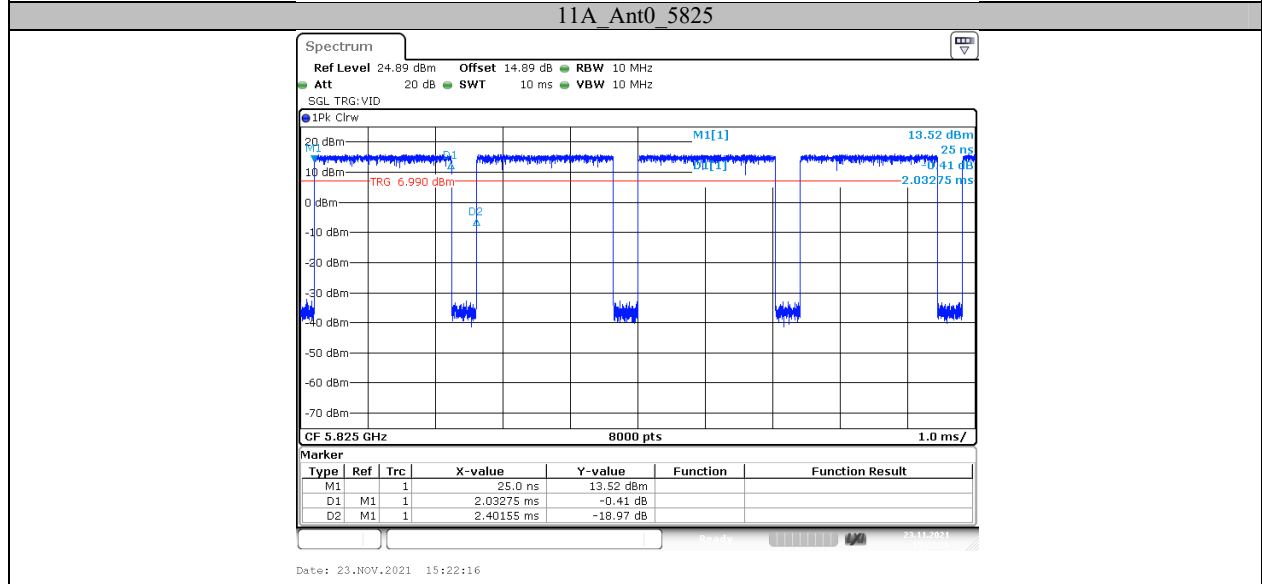
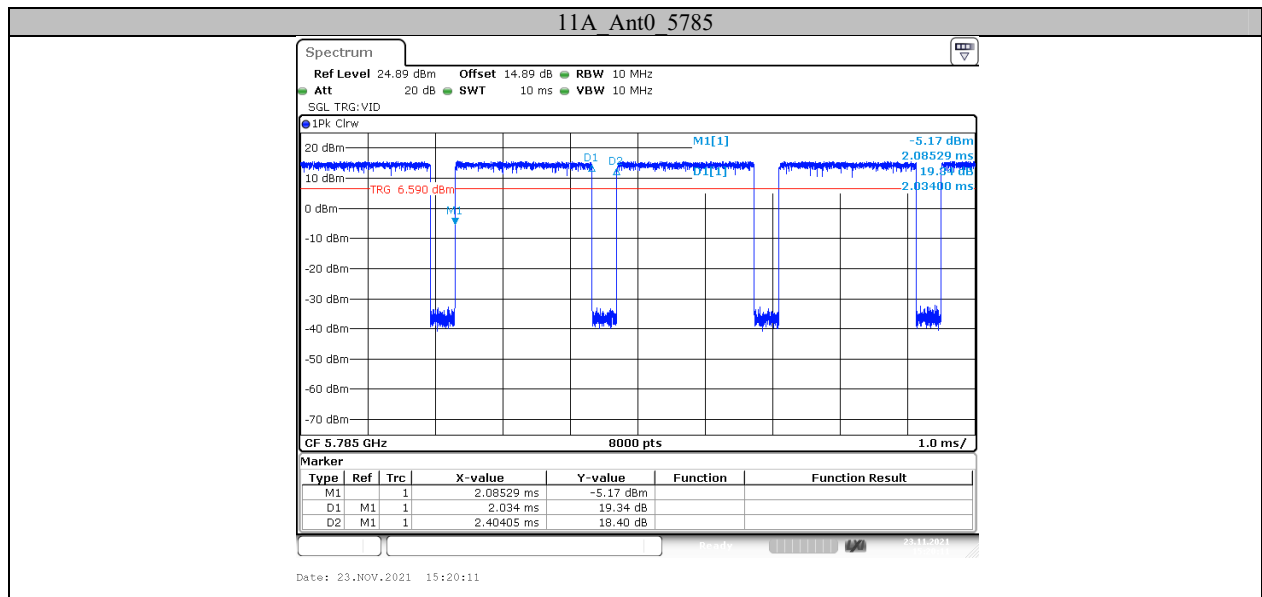
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant0	5180	2.03	2.40	84.60
		5200	2.03	2.40	84.60
		5240	2.03	2.40	84.65
		5745	2.03	2.40	84.60
		5785	2.03	2.40	84.61
		5825	2.03	2.40	84.64
11N20	Ant0	5180	1.89	2.24	84.59
		5200	1.89	2.24	84.59
		5240	1.90	2.24	84.60
		5745	1.90	2.25	84.60
		5785	1.89	2.24	84.59
		5825	1.89	2.24	84.59
11N40	Ant0	5190	0.93	1.10	84.22
		5230	0.93	1.10	84.13
		5755	0.93	1.10	84.24
		5795	0.93	1.10	84.13
11AC20	Ant0	5180	1.90	2.25	84.65
		5200	1.90	2.25	84.60
		5240	1.90	2.25	84.59
		5745	1.90	2.25	84.55
		5785	1.90	2.25	84.55
		5825	1.90	2.25	84.55
11AC40	Ant0	5190	0.94	1.11	84.16
		5230	0.94	1.11	84.14
		5755	0.94	1.11	84.14
		5795	0.94	1.11	84.16
11AC80	Ant0	5210	0.44	0.55	80.00
		5775	0.44	0.55	80.00

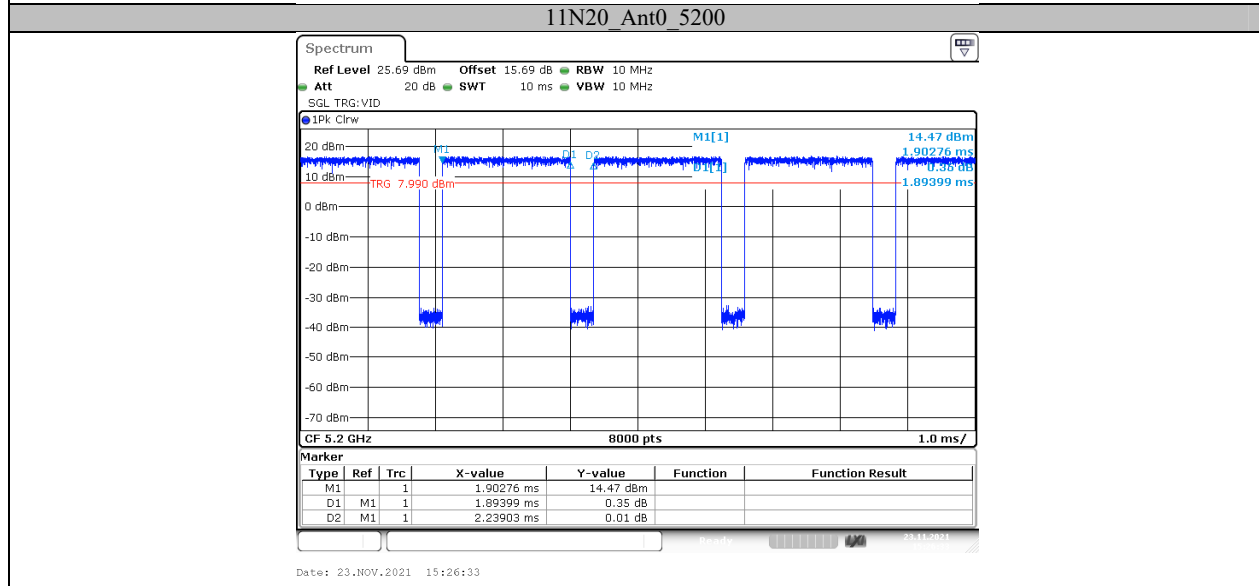
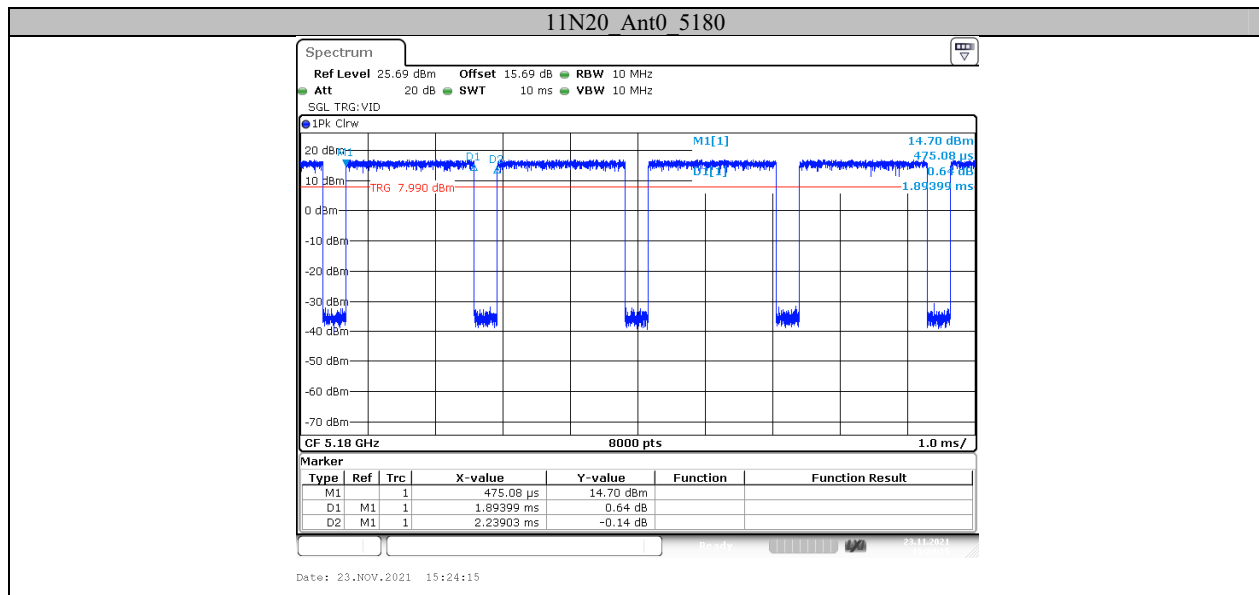
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	2.03	2.40	84.61
		5200	2.03	2.40	84.60
		5240	2.03	2.40	84.60
		5745	2.03	2.40	84.65
		5785	2.03	2.40	84.64
		5825	2.03	2.40	84.60
11N20	Ant1	5180	1.89	2.24	84.59
		5200	1.89	2.24	84.59
		5240	1.89	2.24	84.59
		5745	1.89	2.24	84.59
		5785	1.89	2.24	84.59
		5825	1.89	2.24	84.59
11N40	Ant1	5190	0.93	1.10	84.22
		5230	0.93	1.10	84.22
		5755	0.93	1.10	84.22
		5795	0.93	1.10	84.24
11AC20	Ant1	5180	1.89	2.24	84.59
		5200	1.89	2.24	84.59
		5240	1.90	2.25	84.59
		5745	1.90	2.25	84.55
		5785	1.90	2.25	84.59
		5825	1.90	2.25	84.59
11AC40	Ant1	5190	0.94	1.11	84.16
		5230	0.94	1.11	84.16
		5755	0.94	1.11	84.16
		5795	0.94	1.11	84.16
11AC80	Ant1	5210	0.44	0.55	80.00
		5775	0.44	0.55	80.00

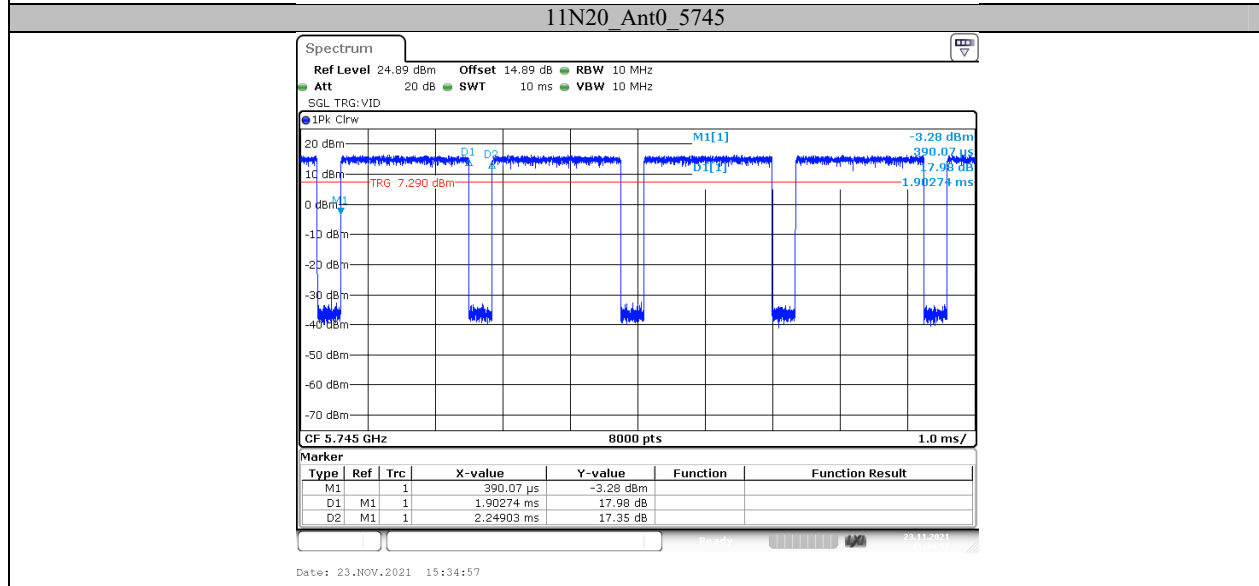
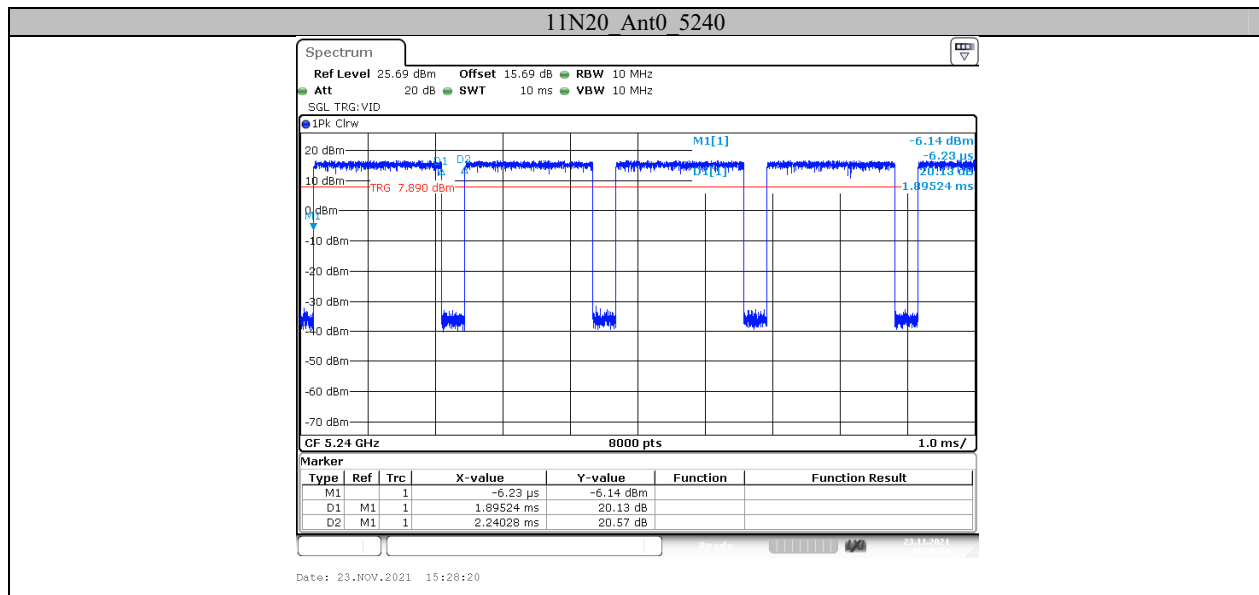
Test Graphs

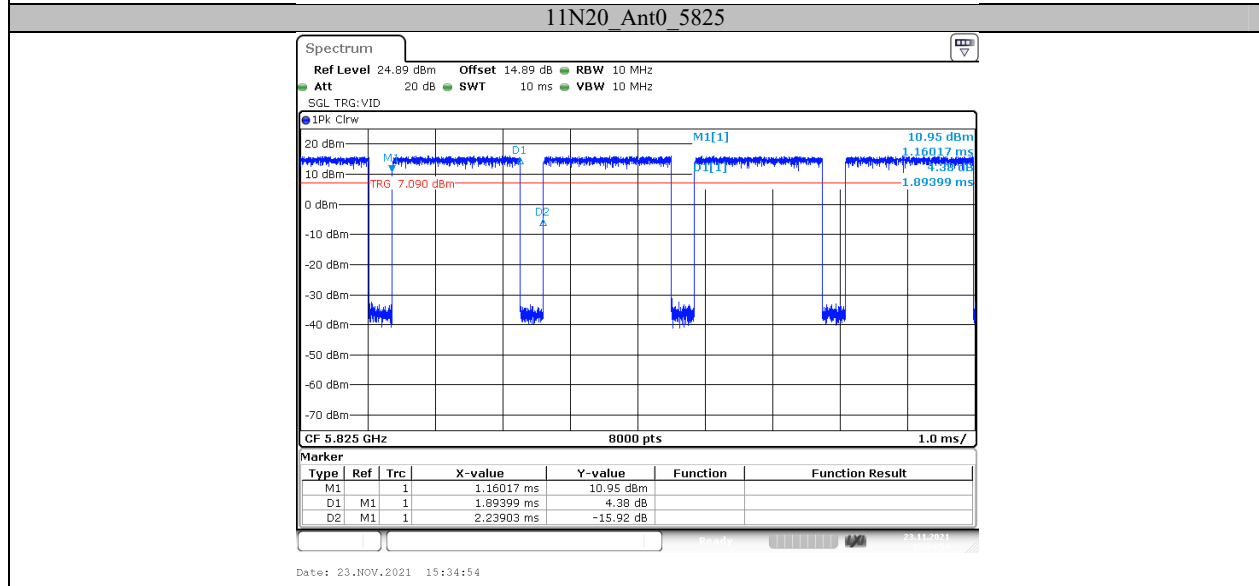
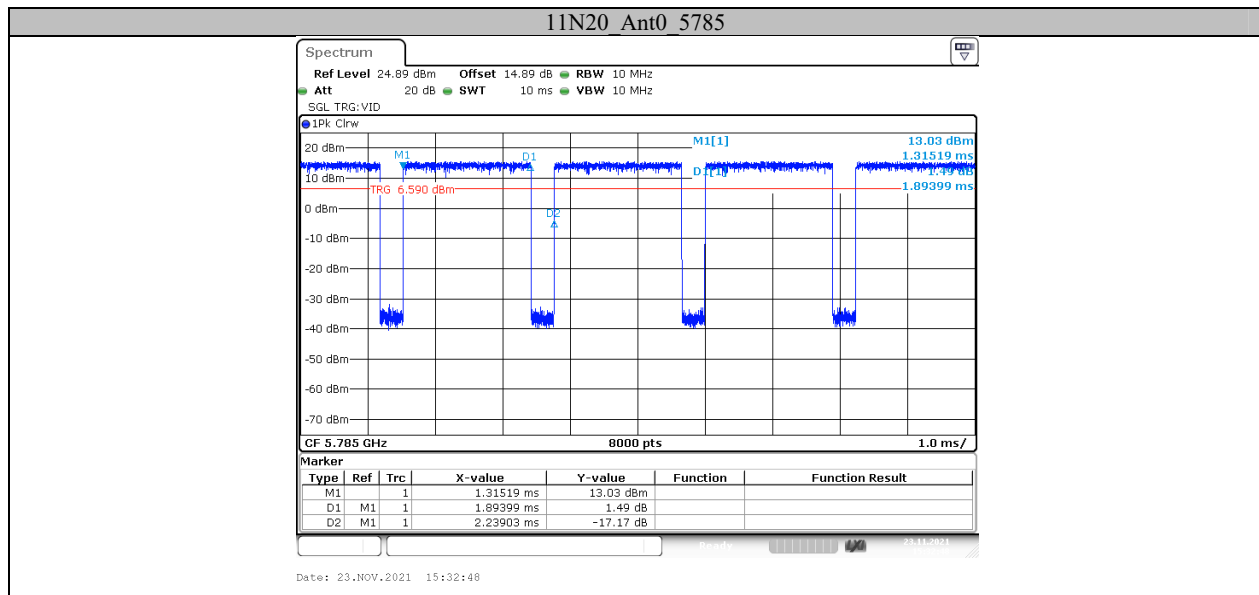


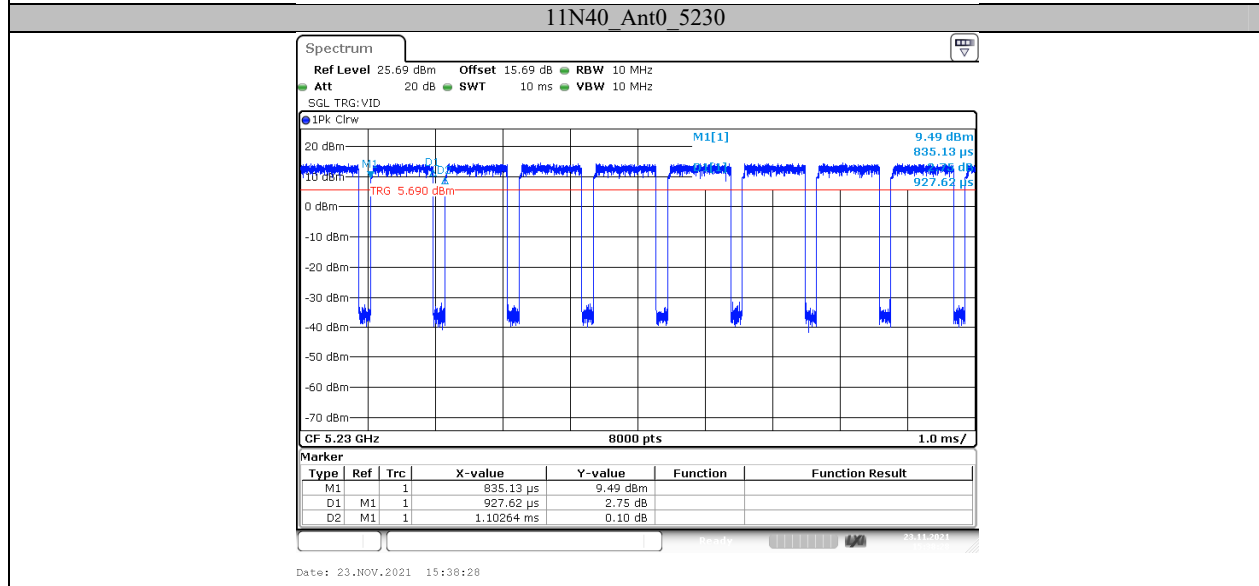
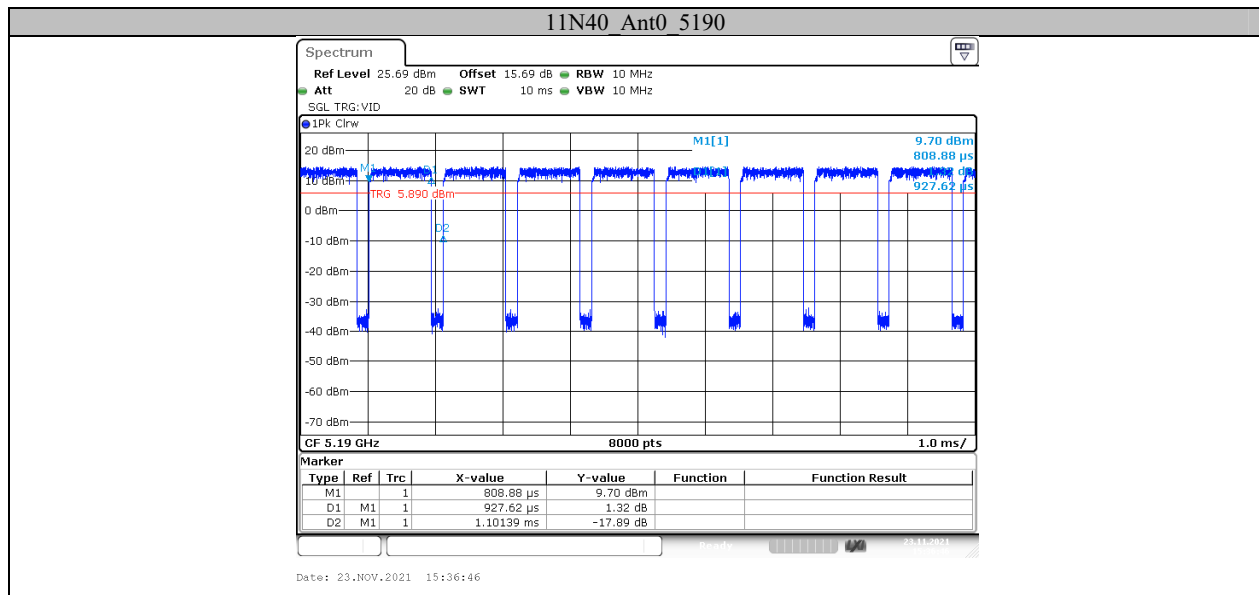


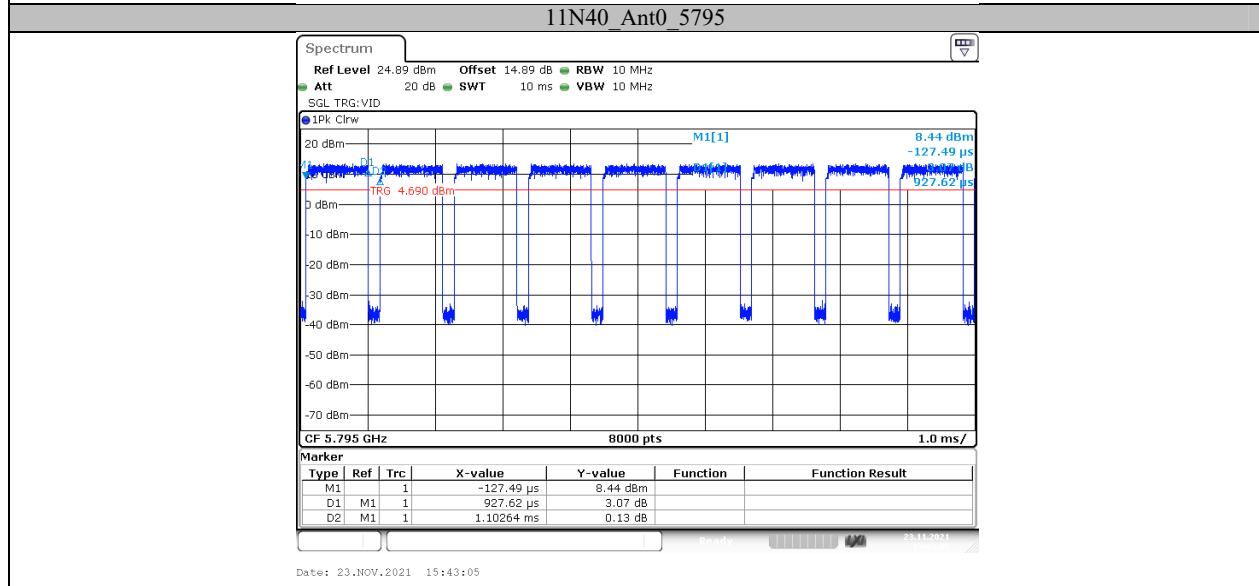
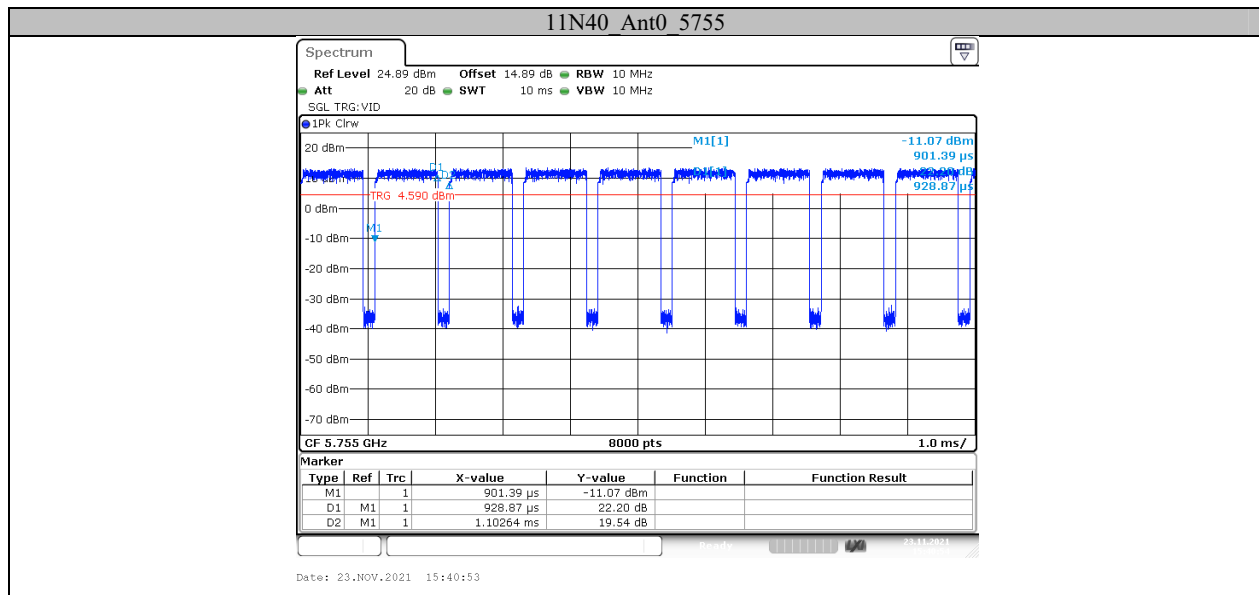


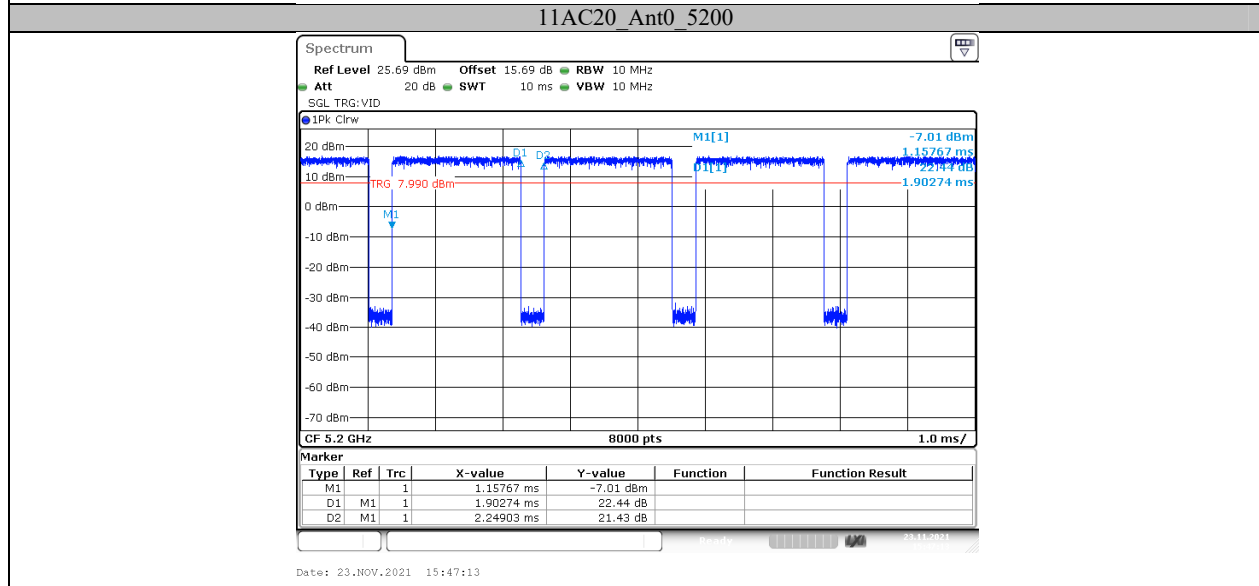
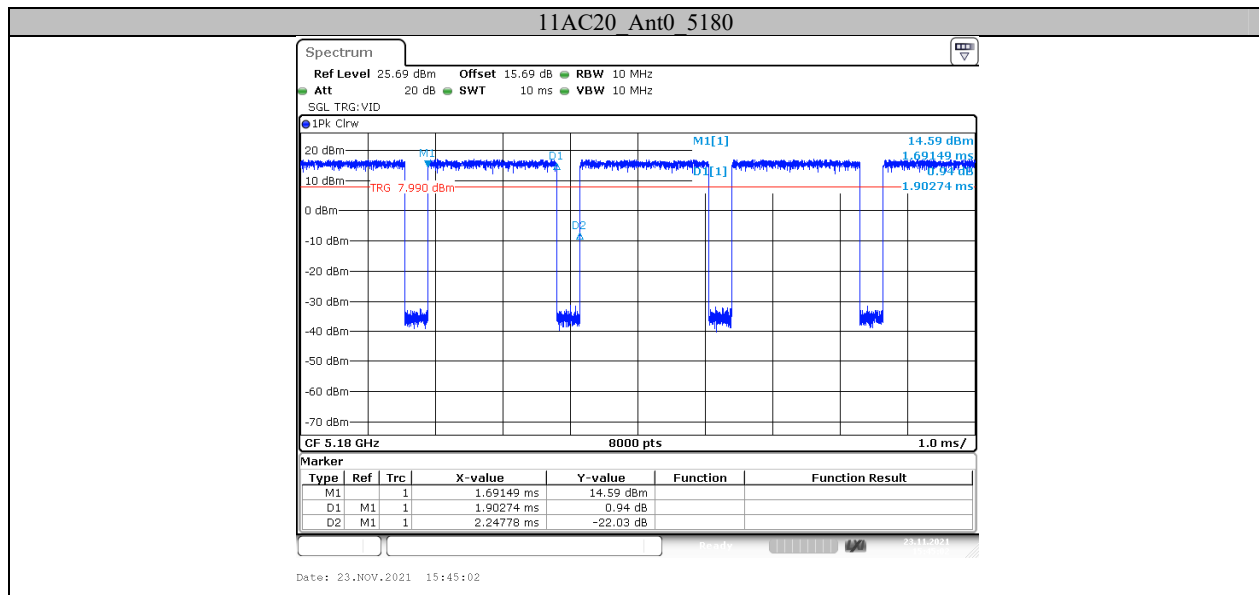


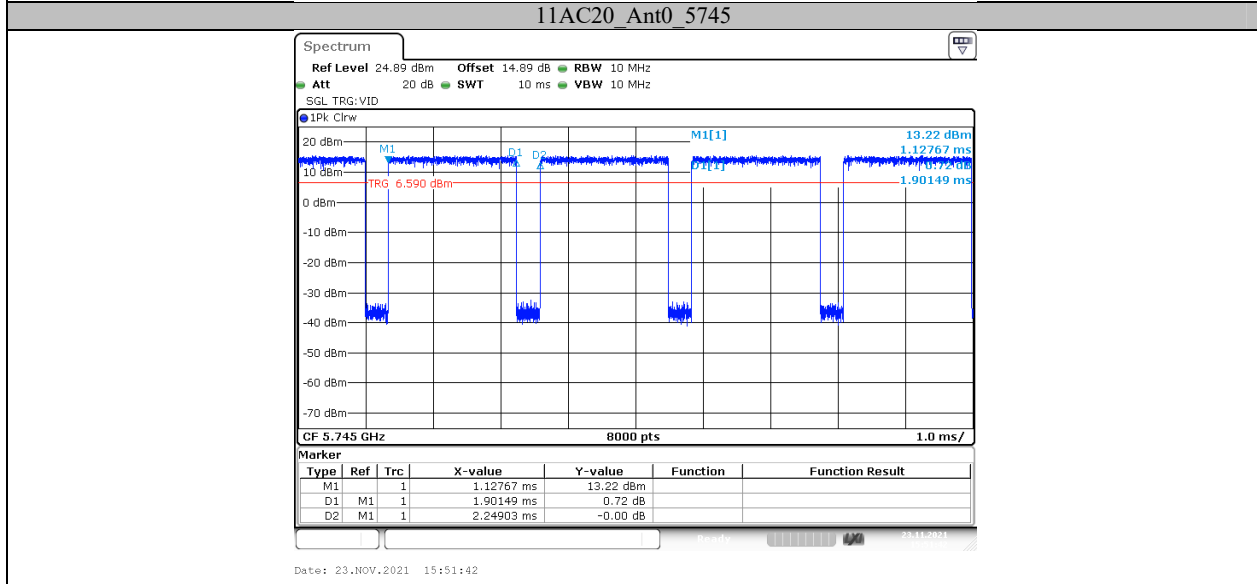
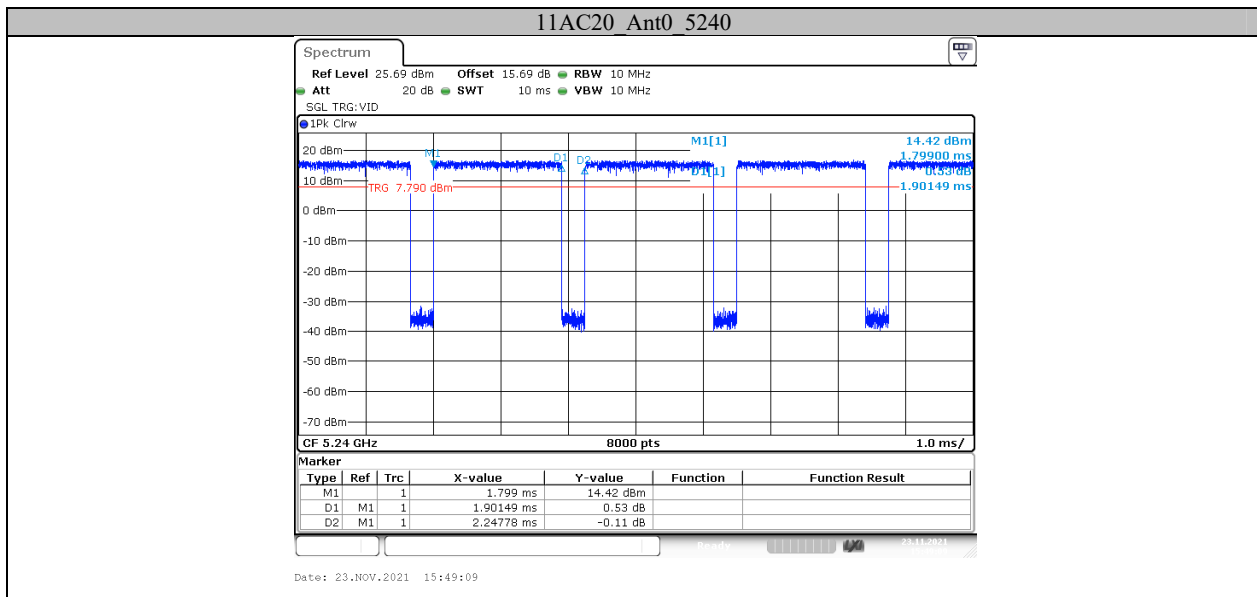


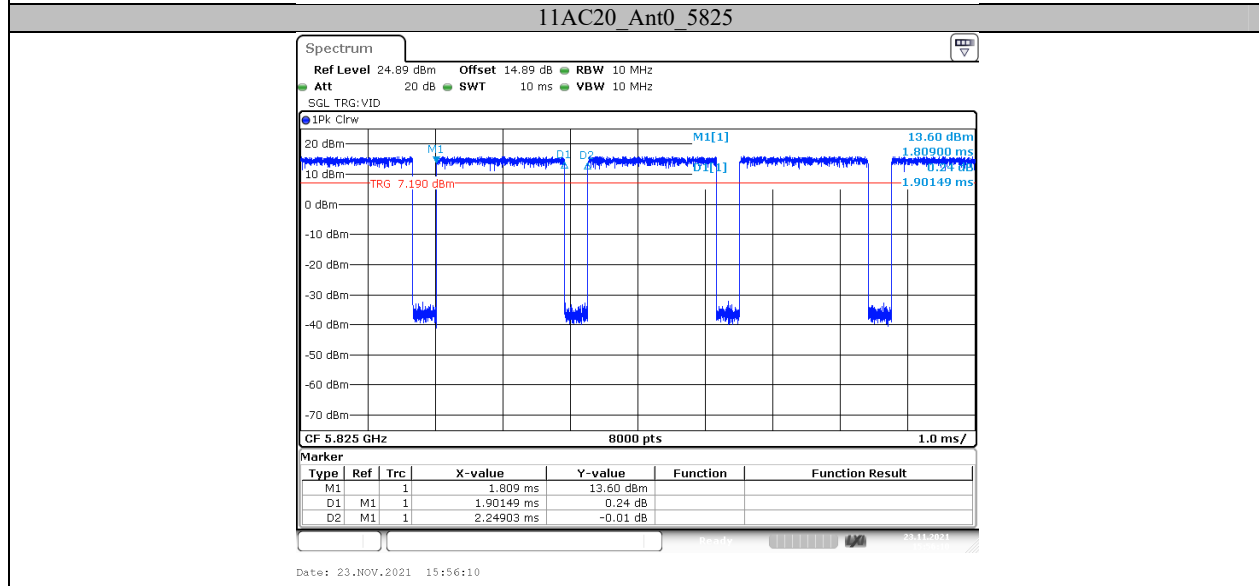
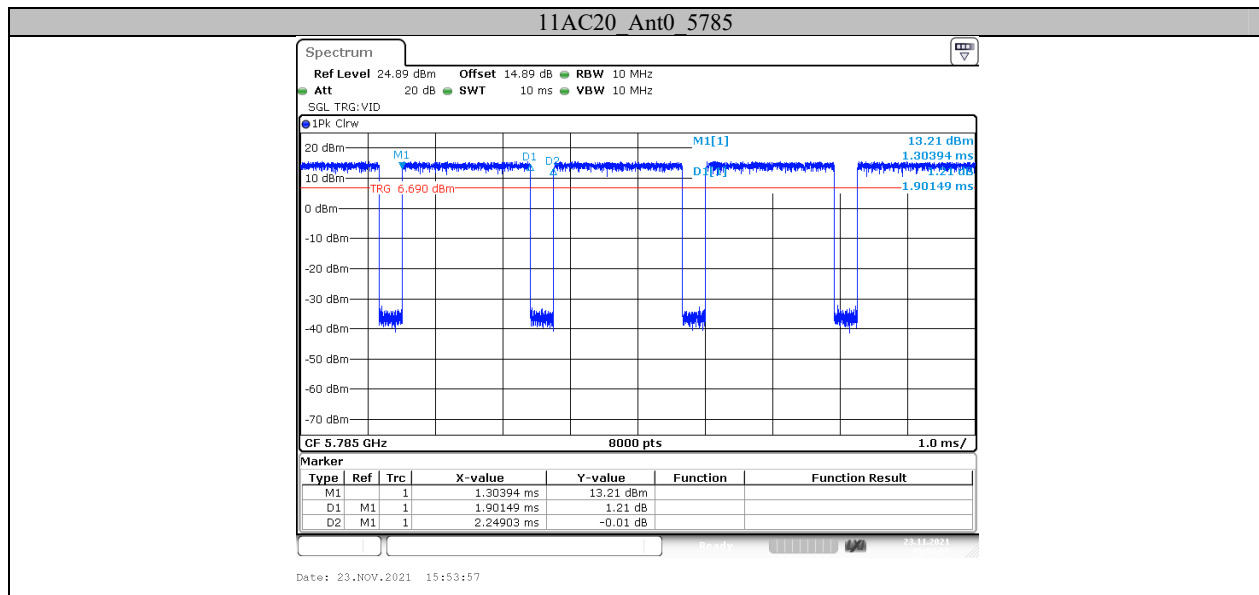


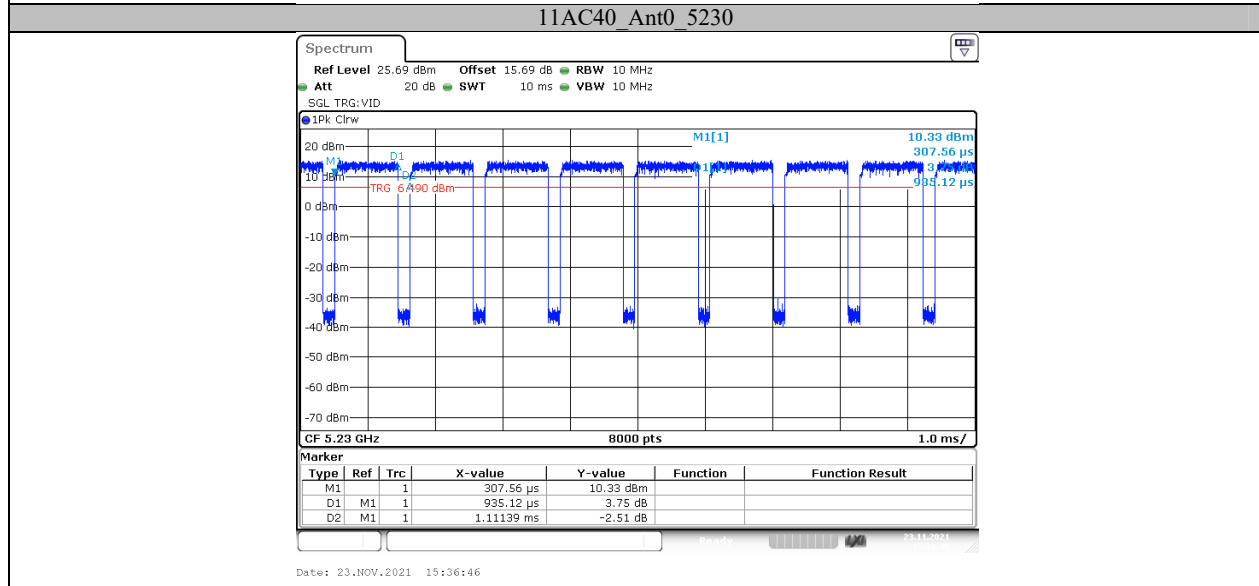
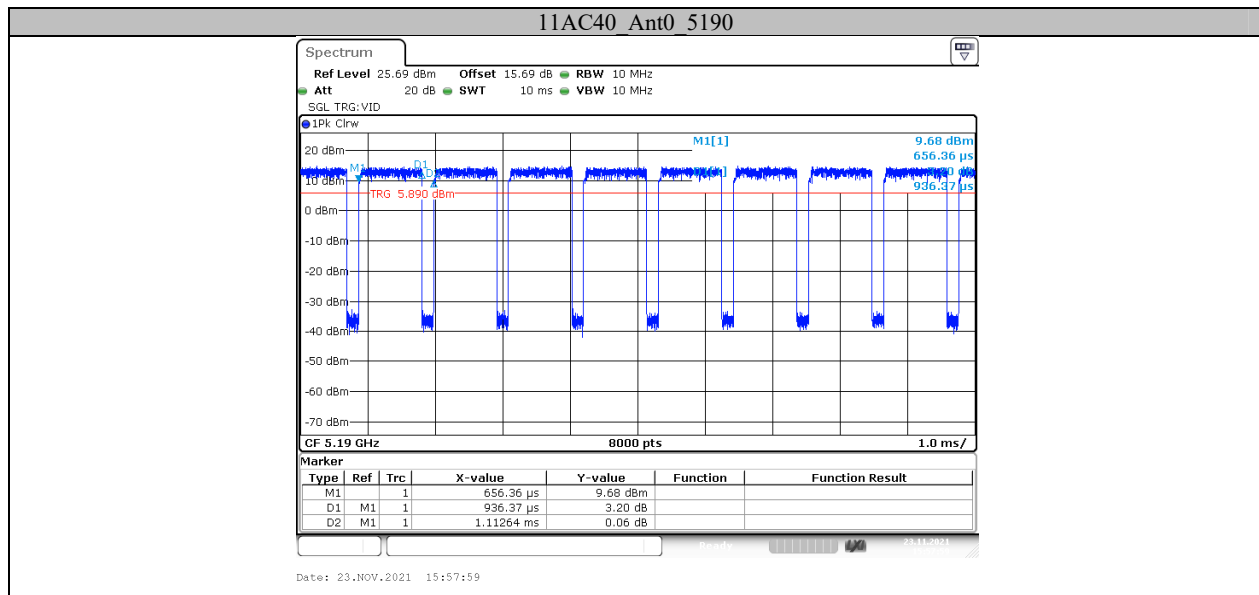


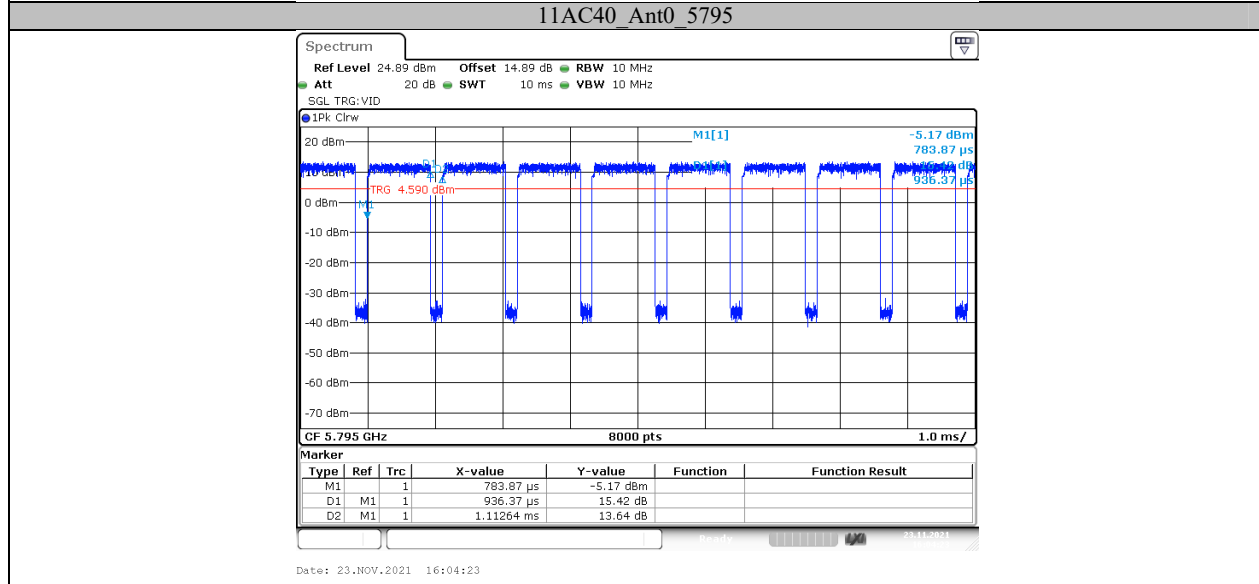
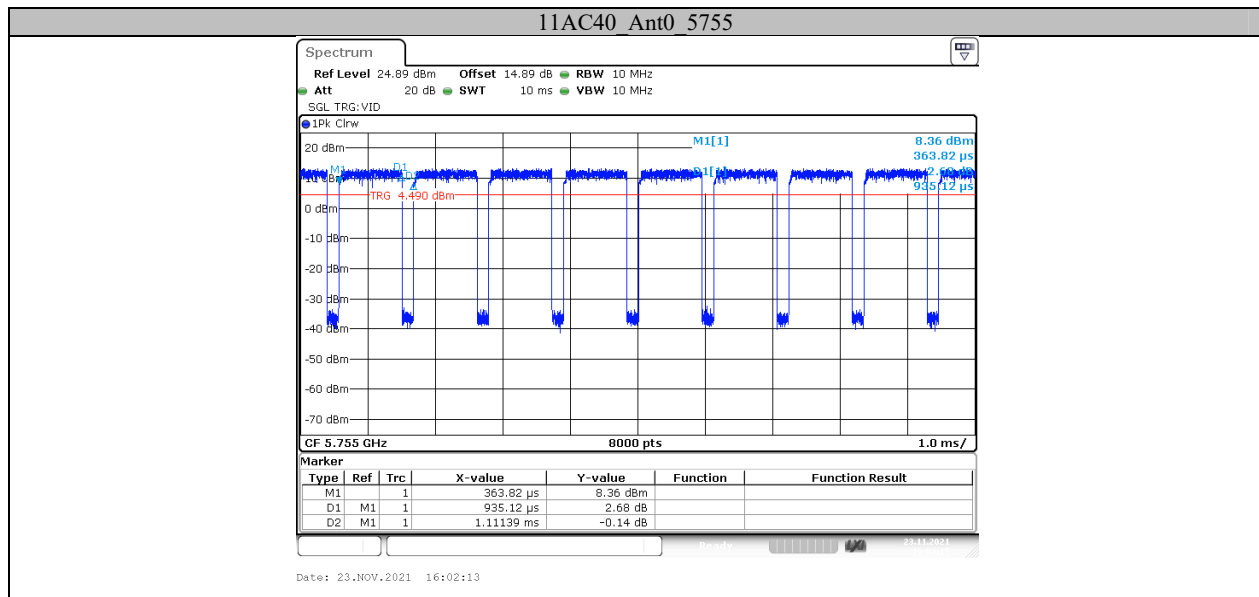


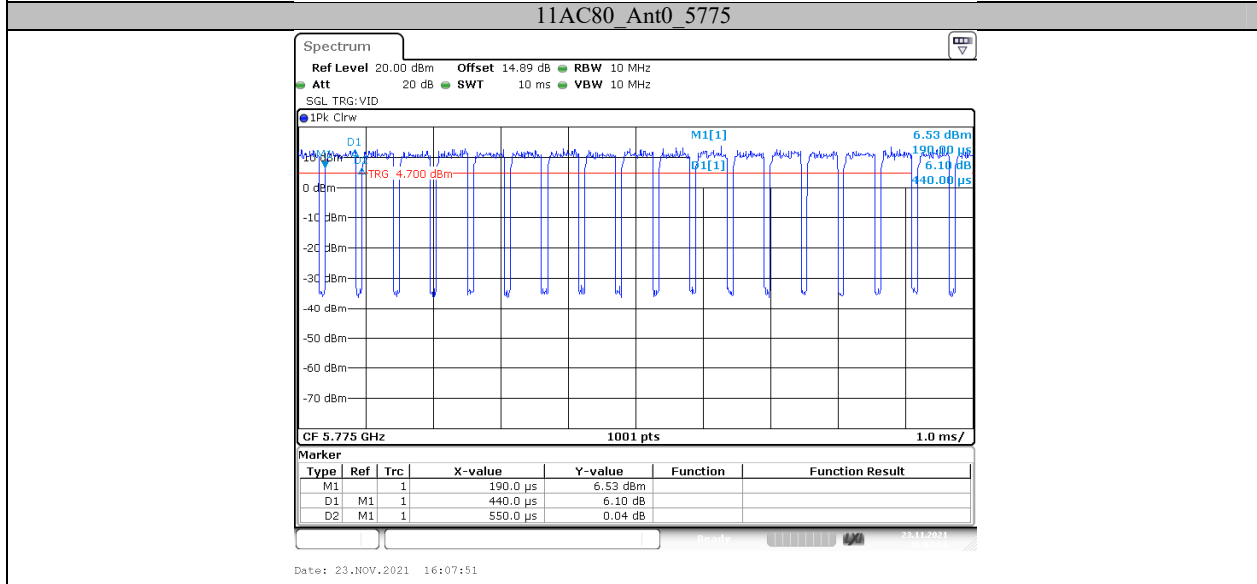
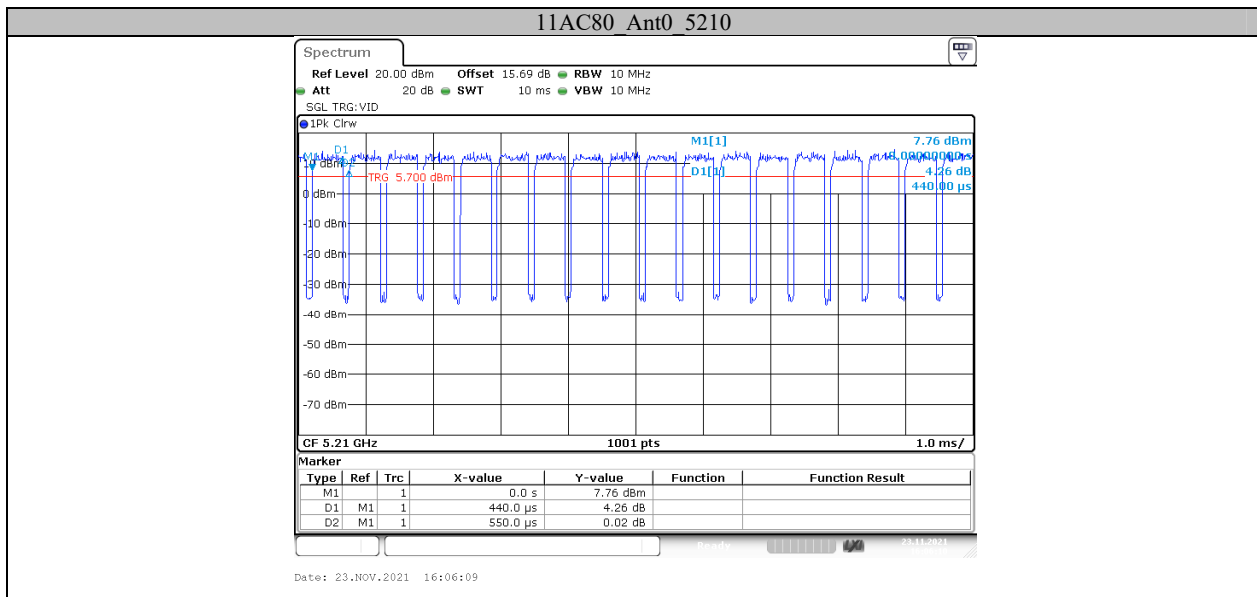


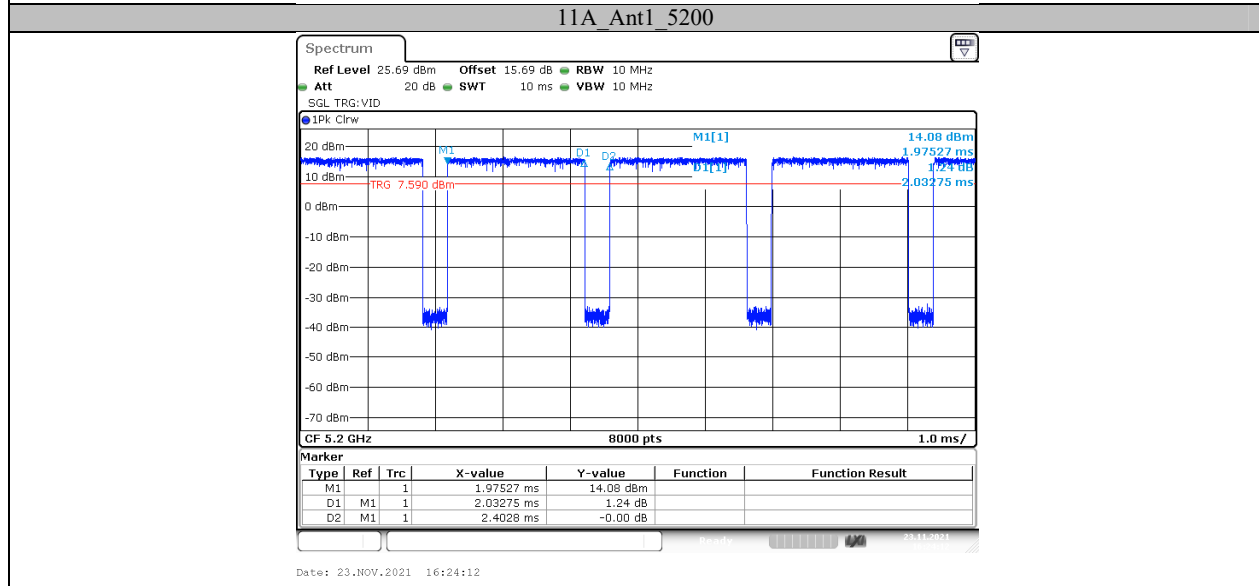
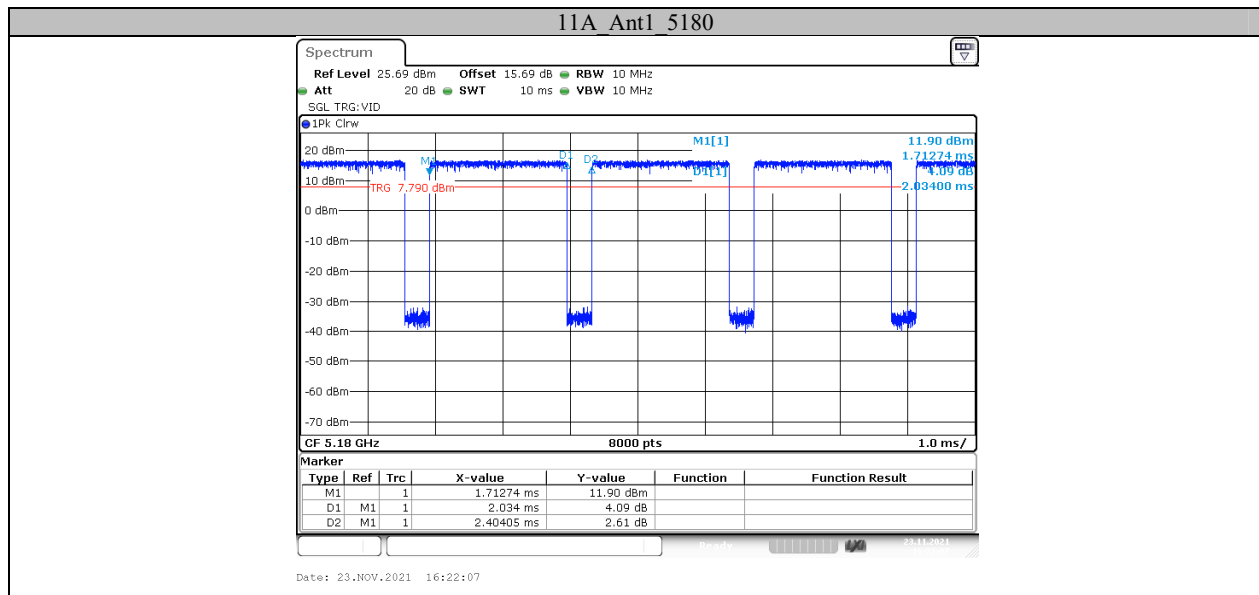


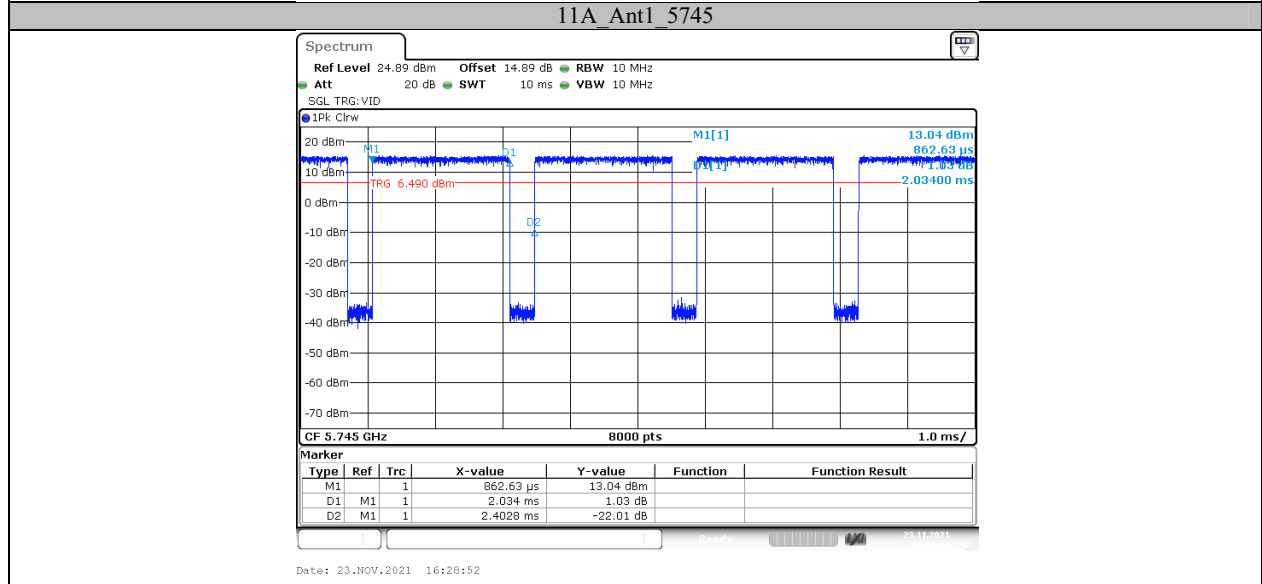
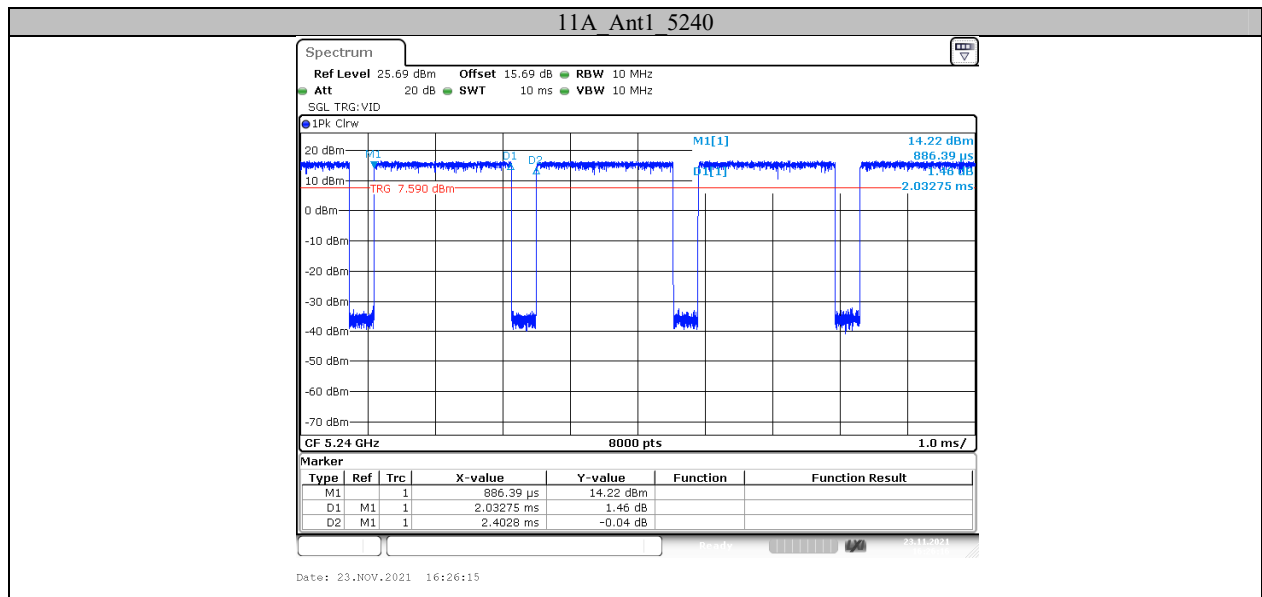


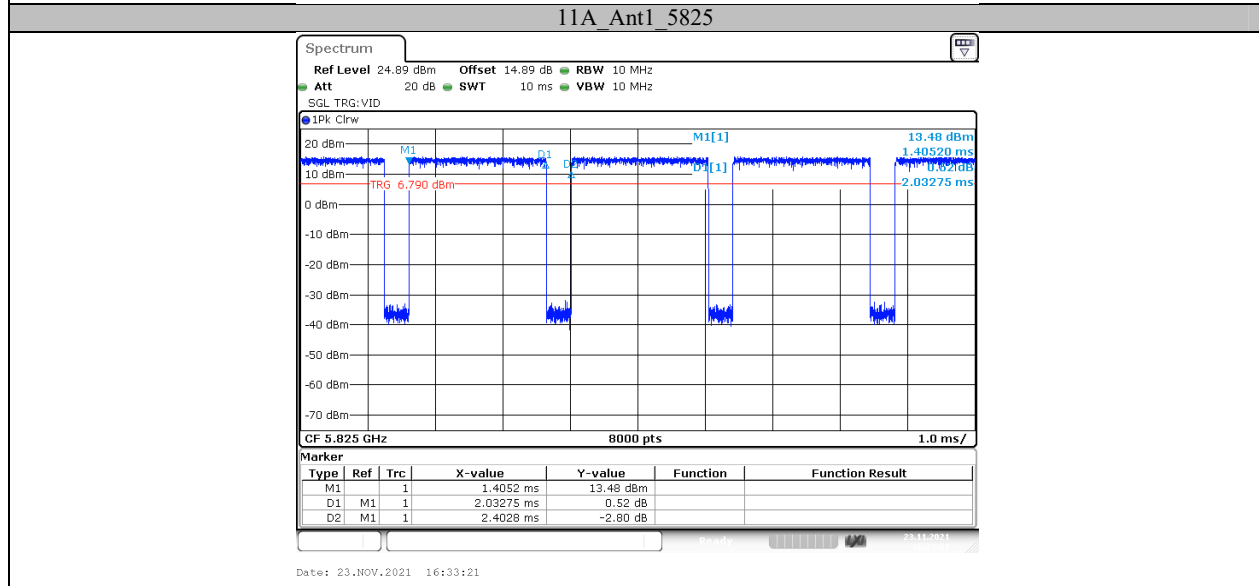
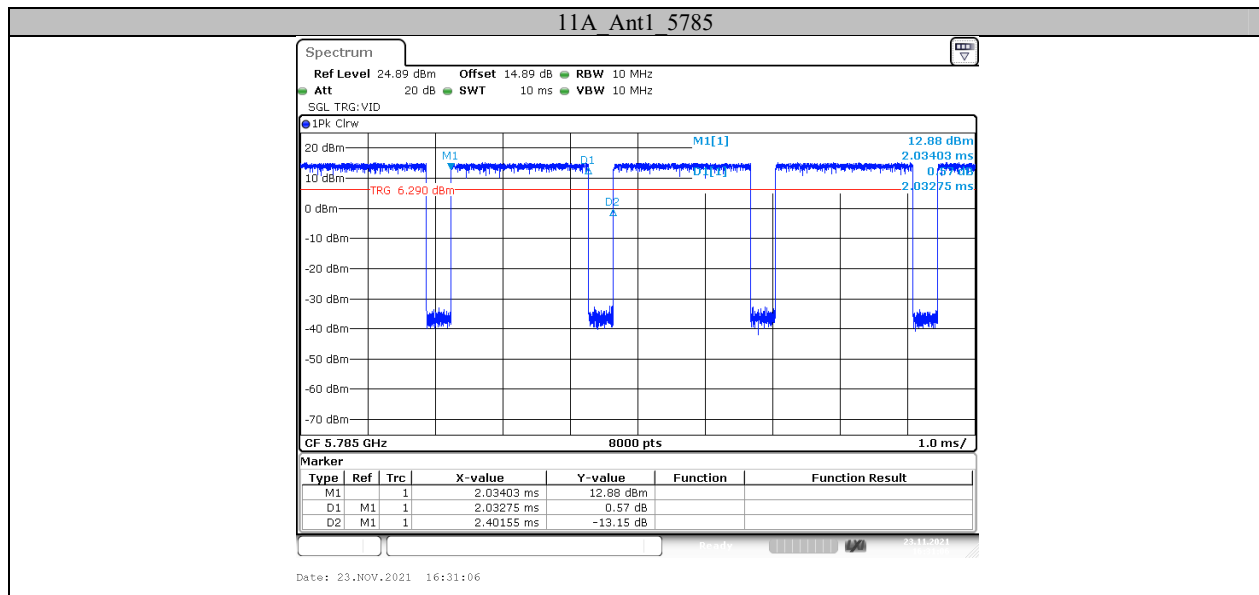


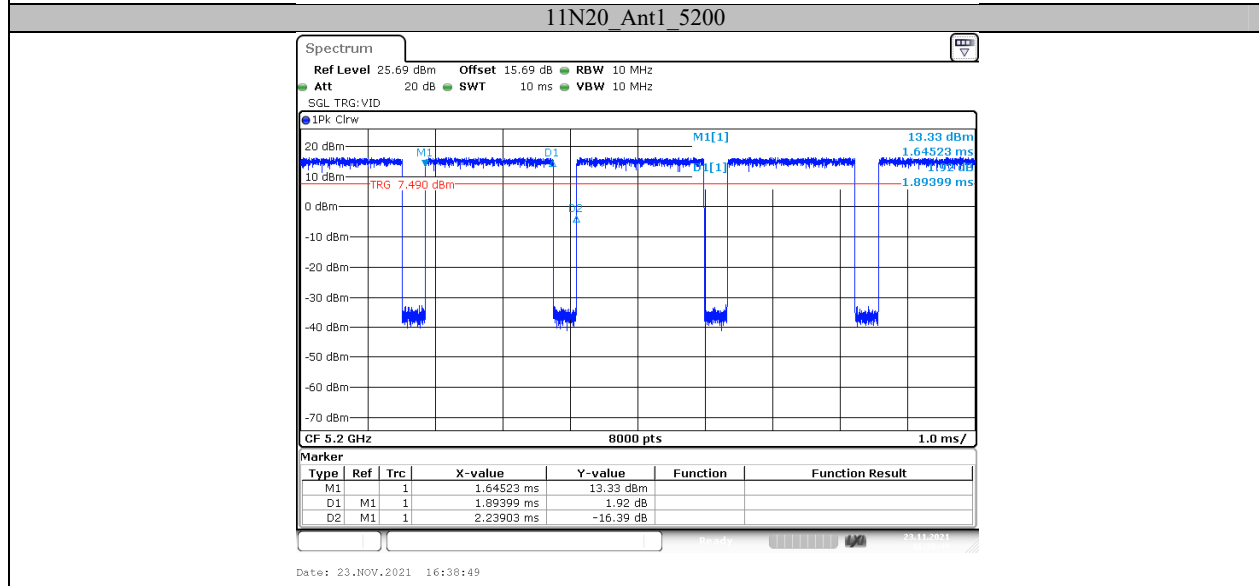
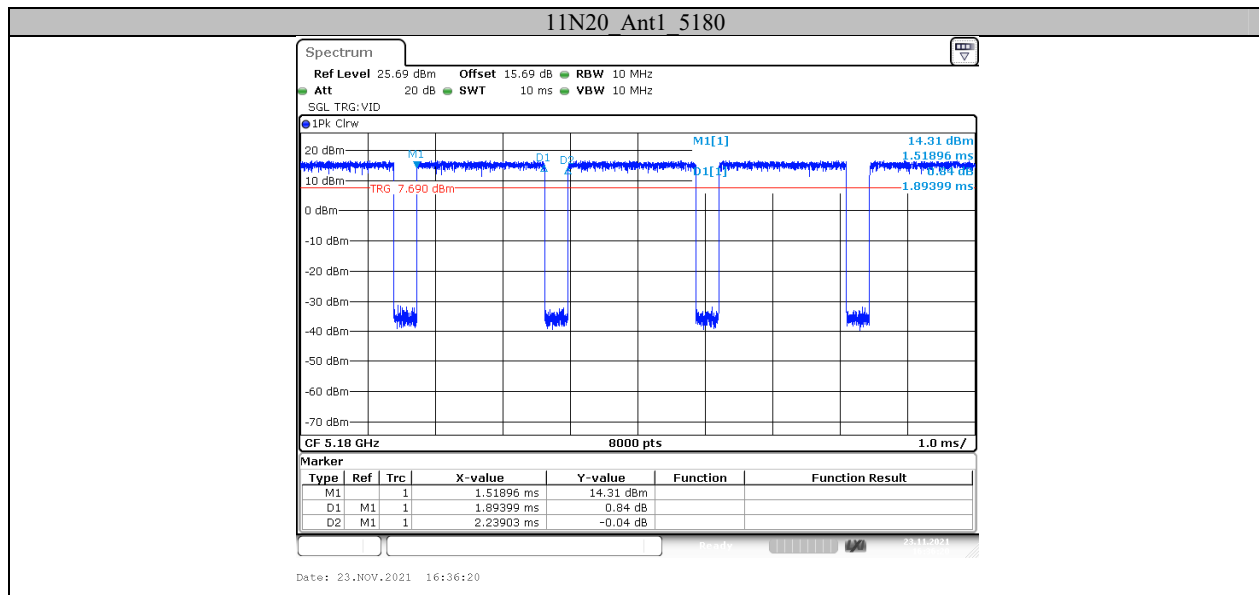


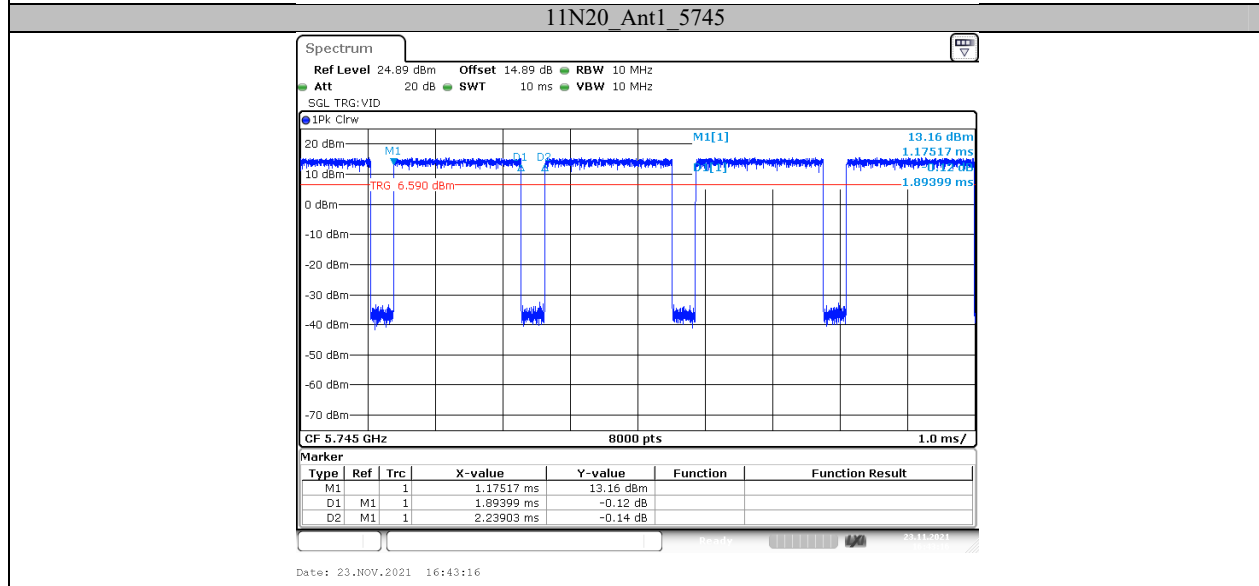
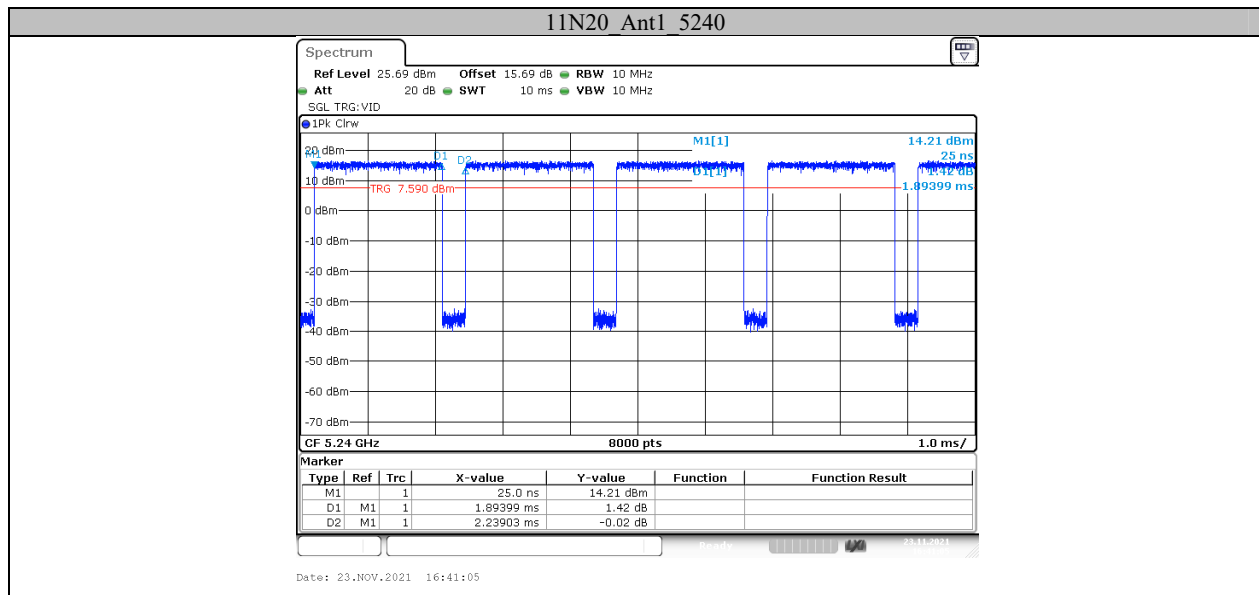


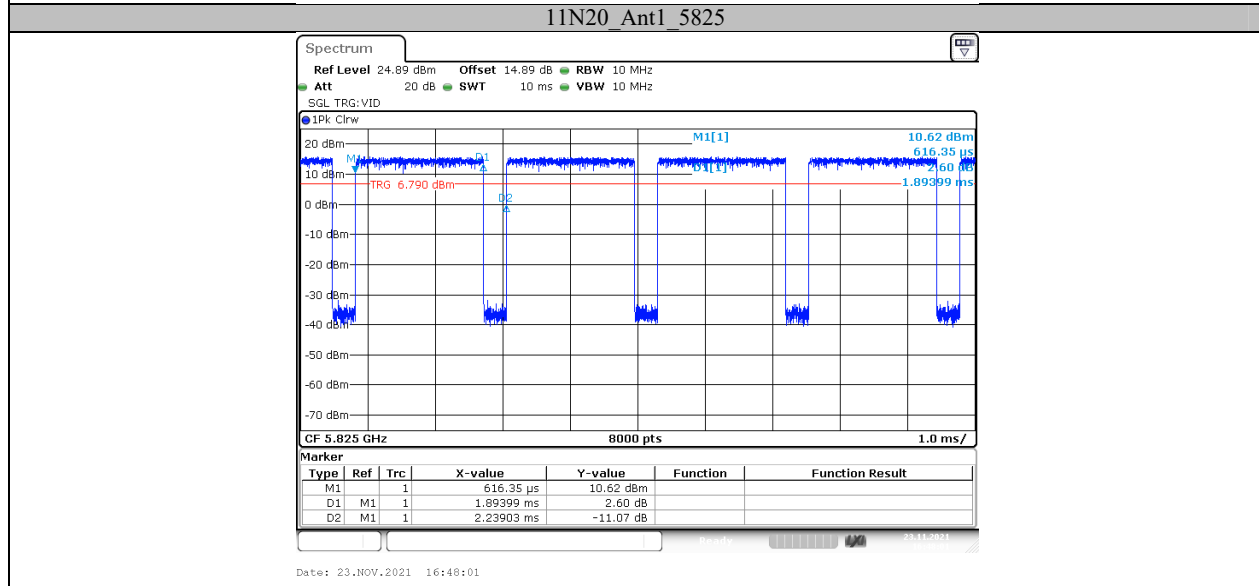
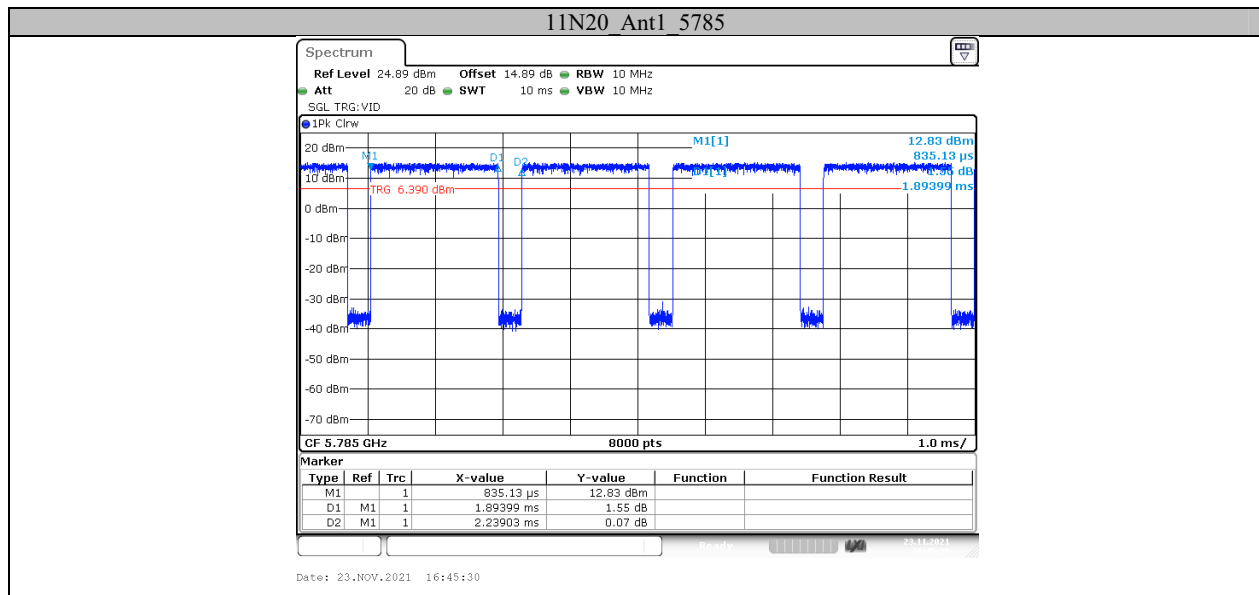


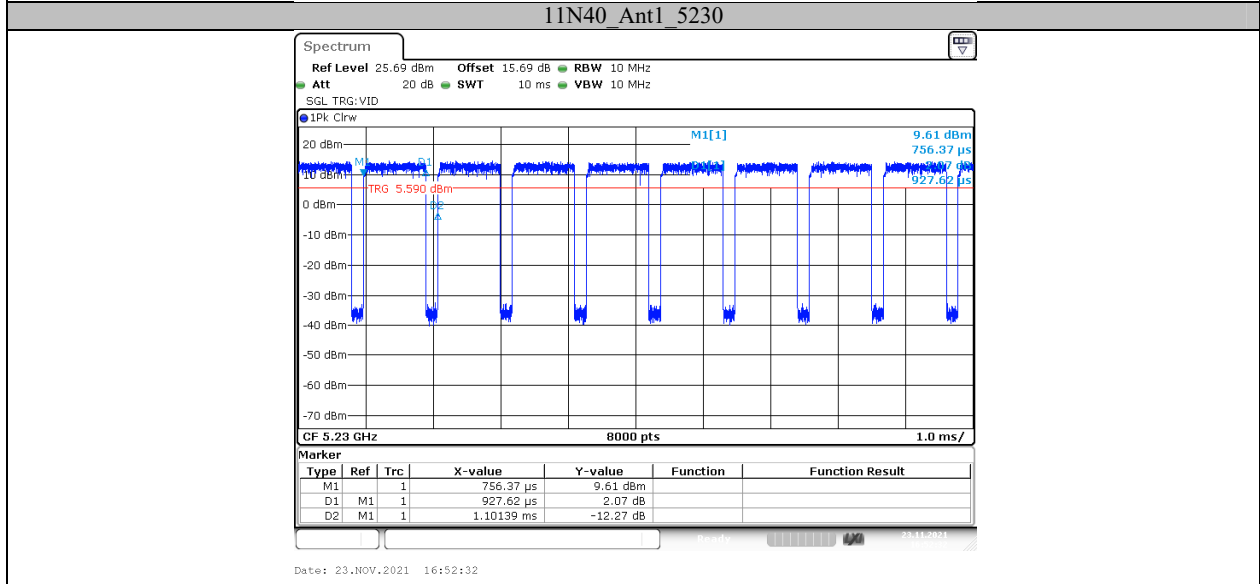
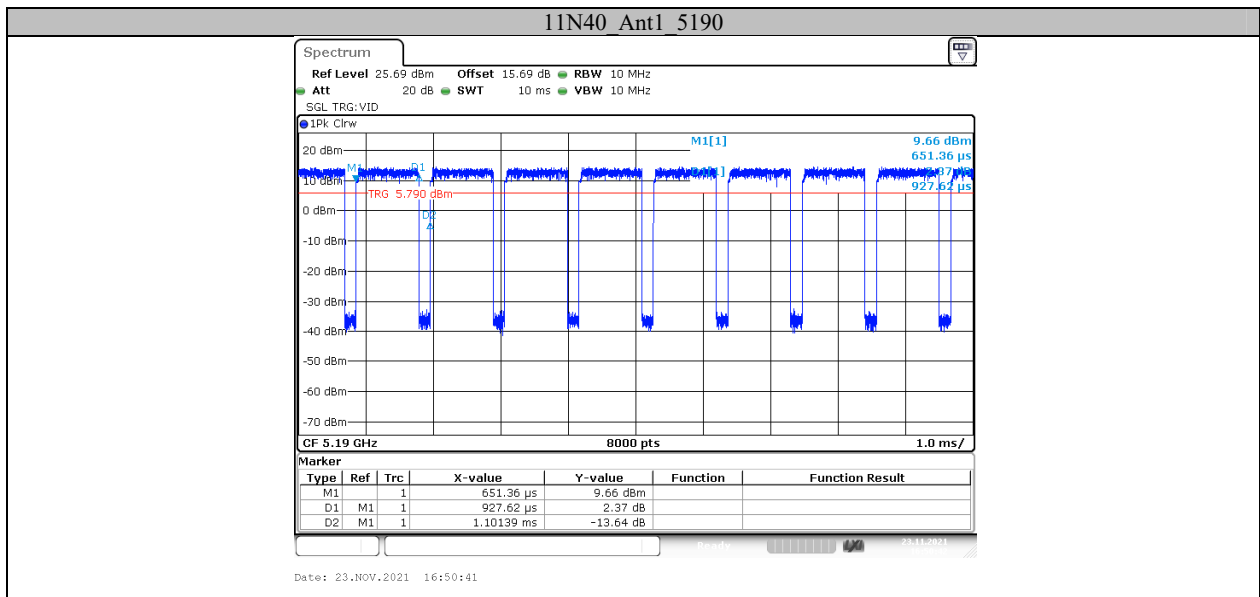


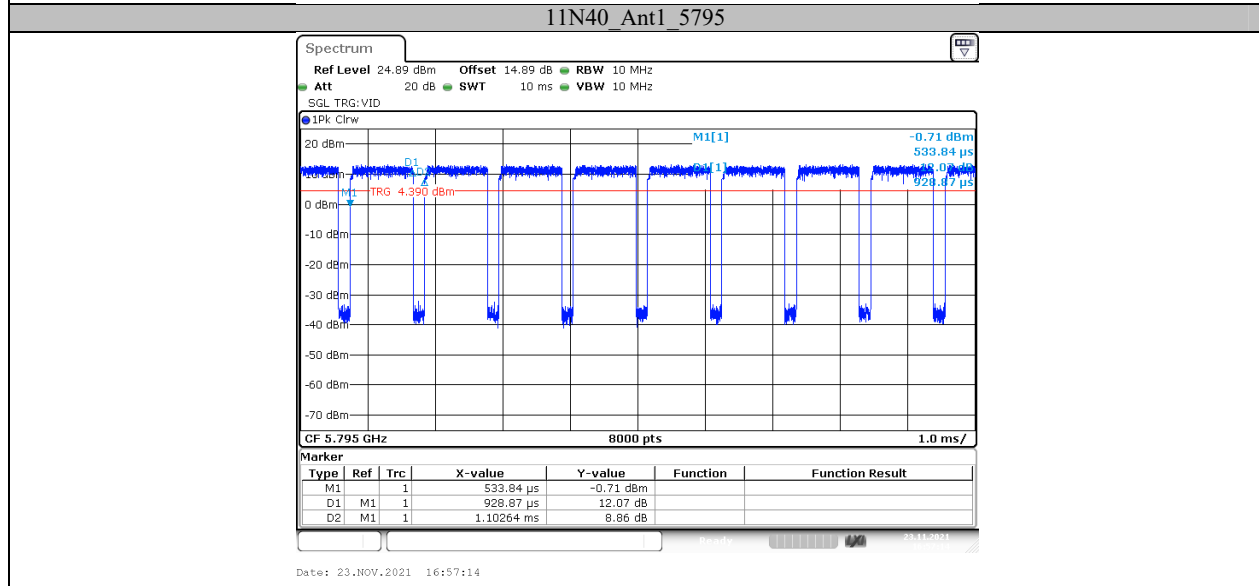
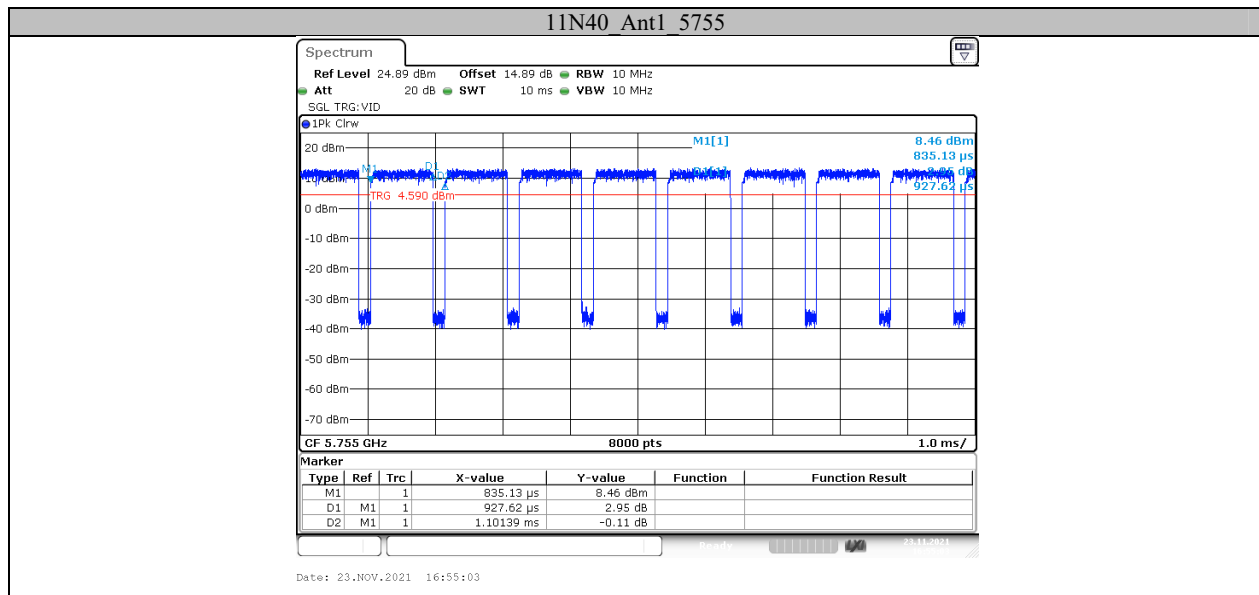


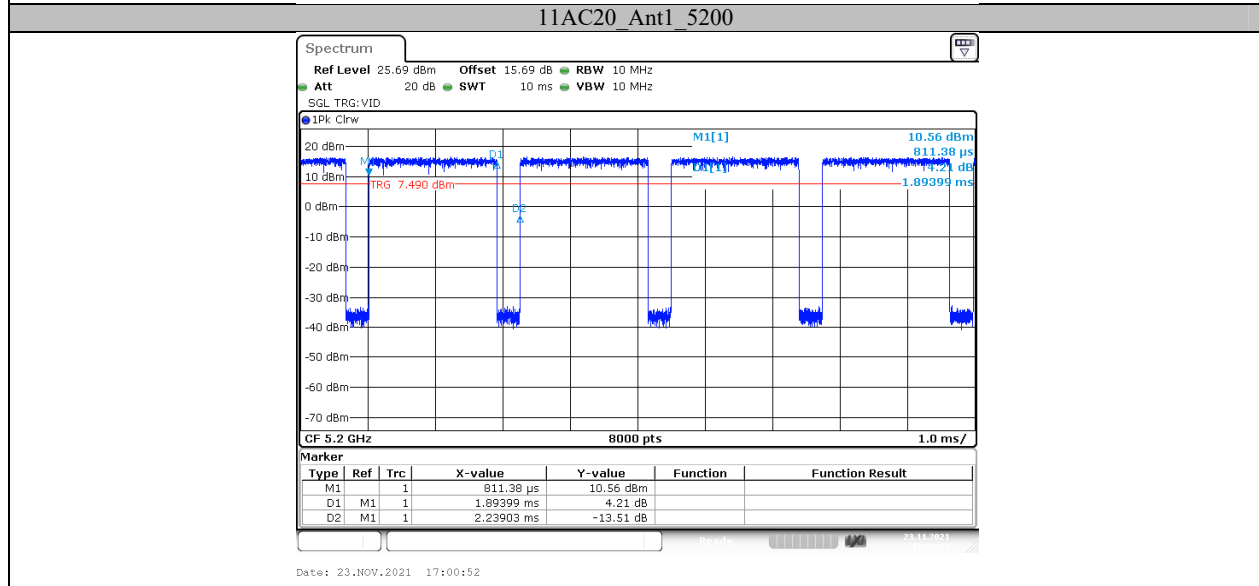
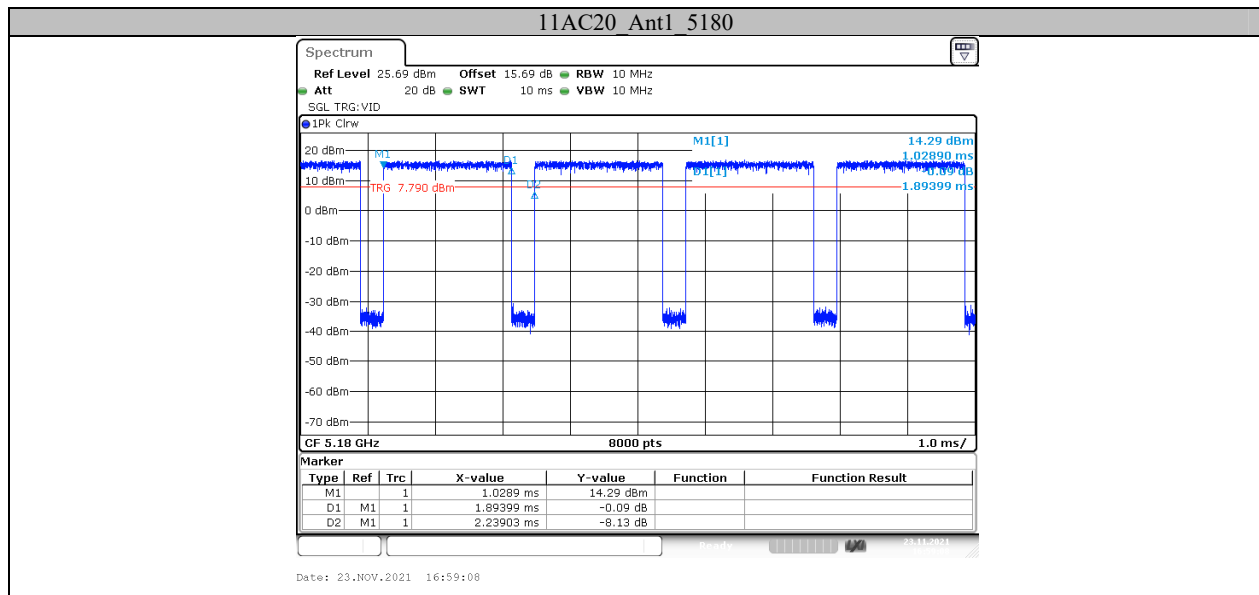


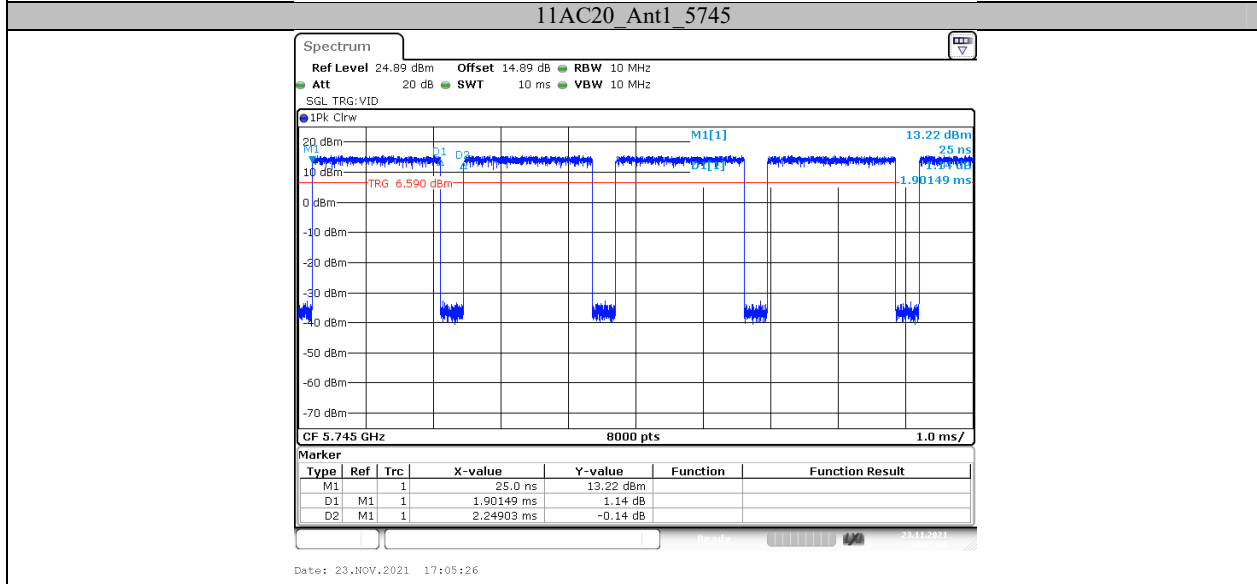
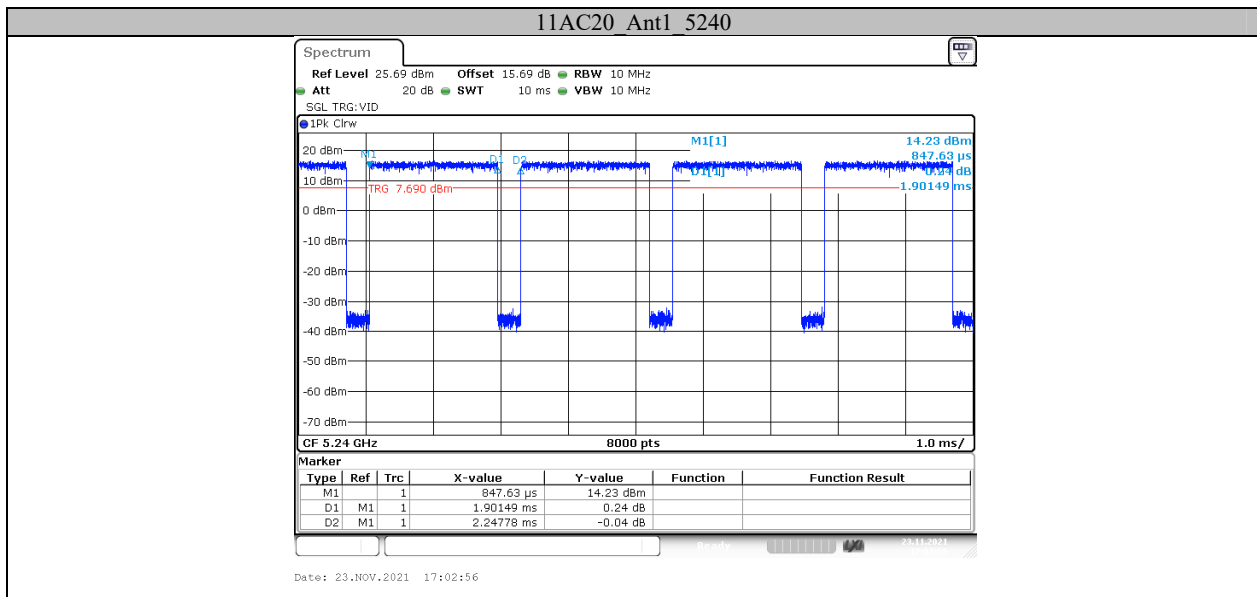


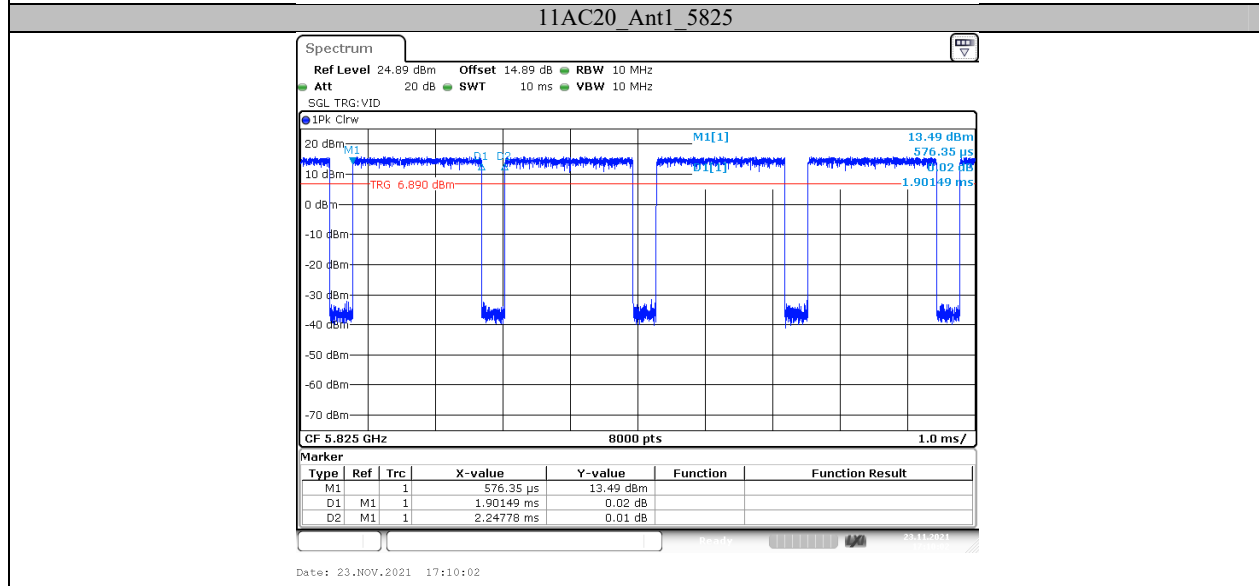
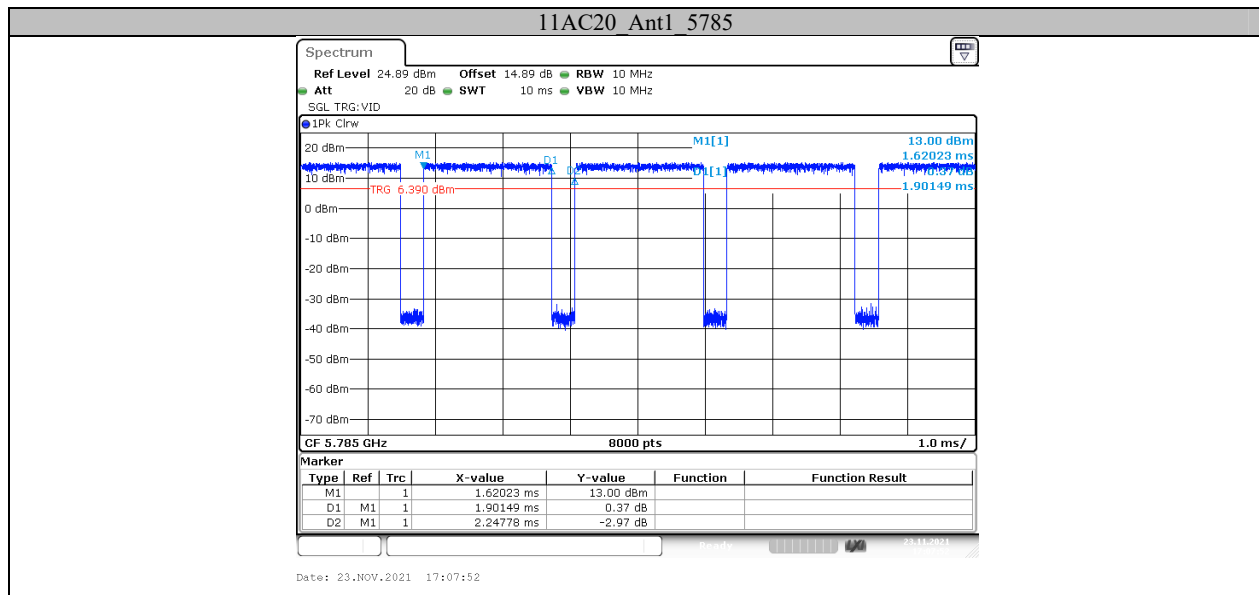


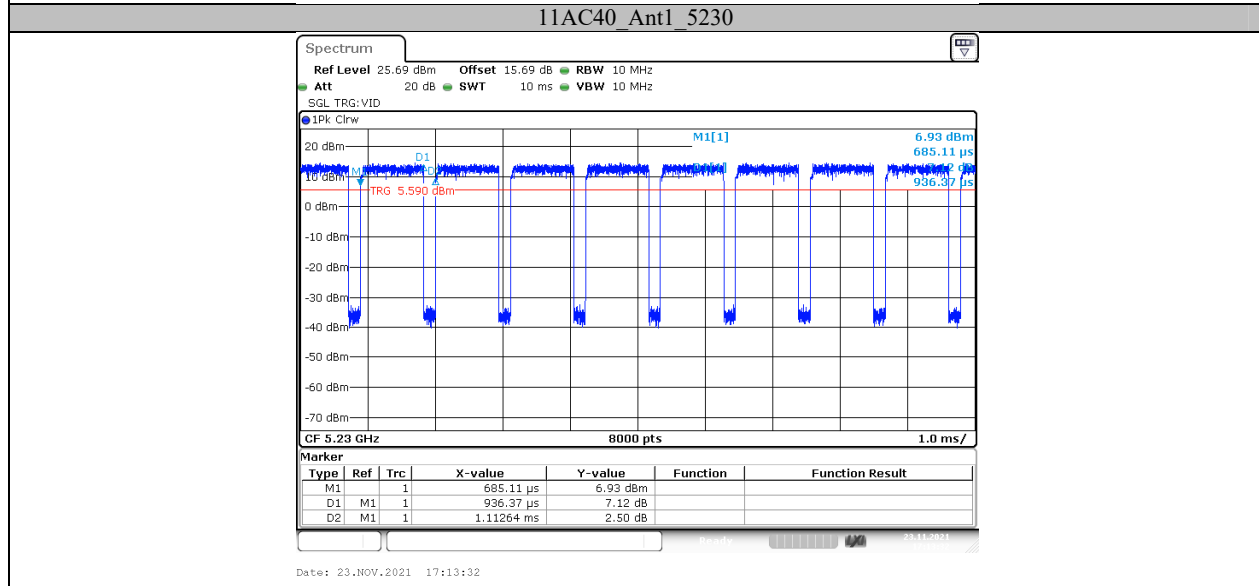
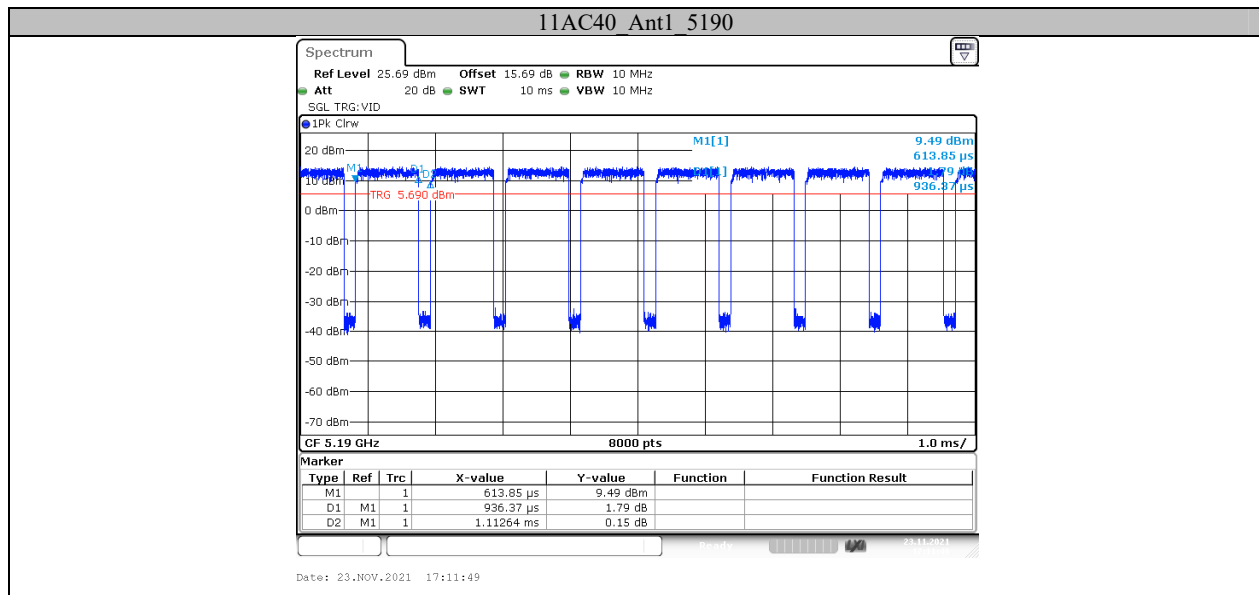


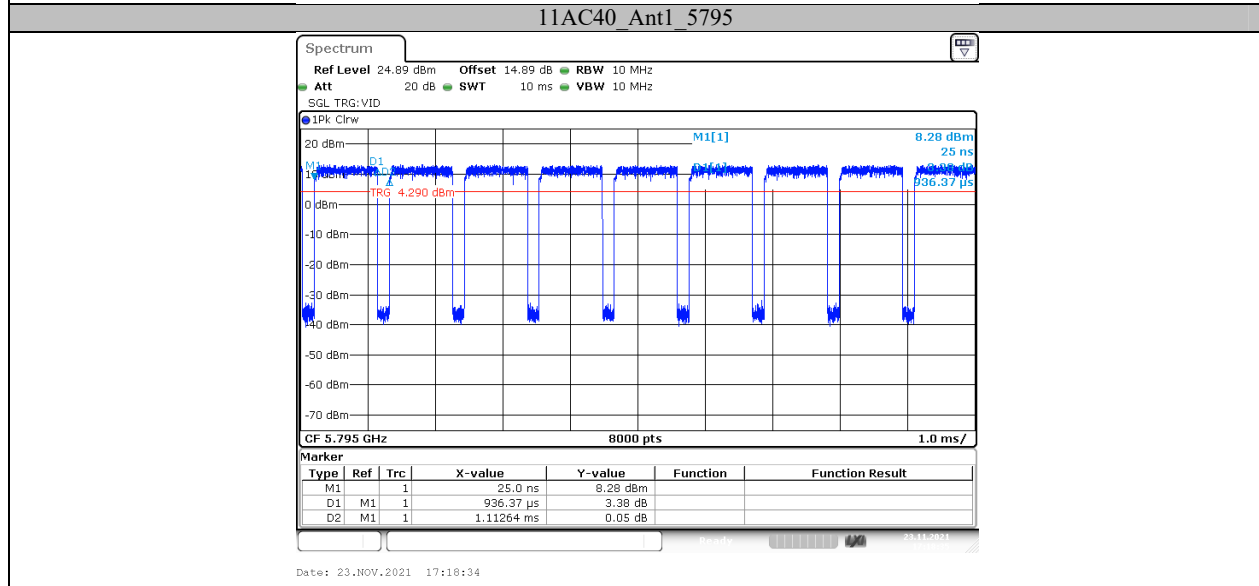
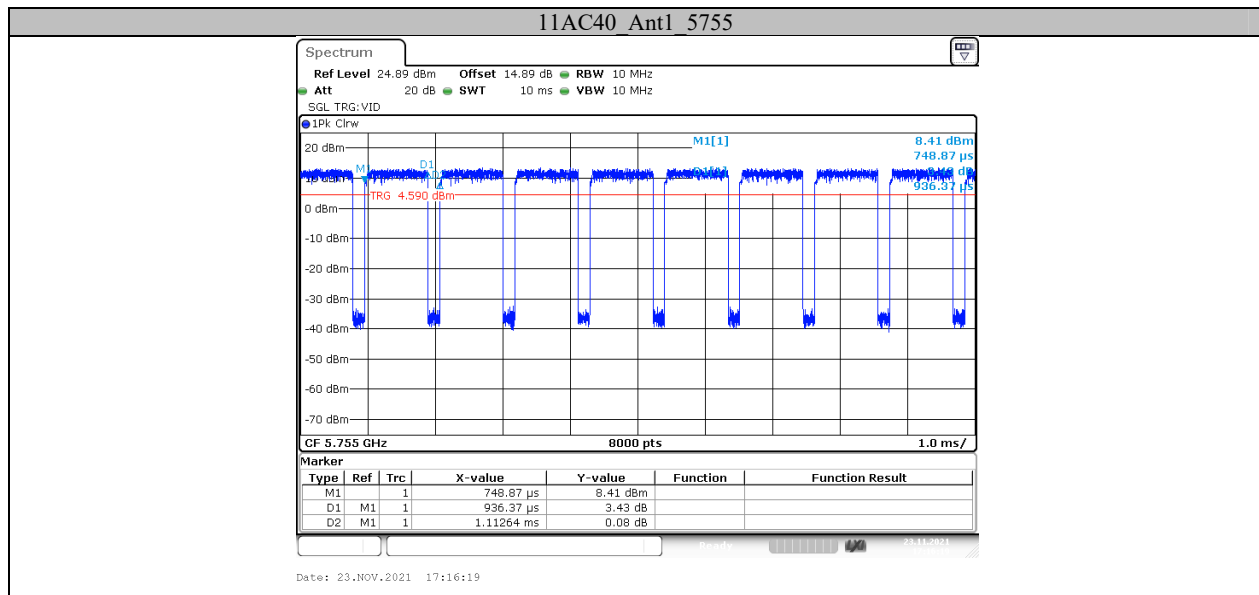


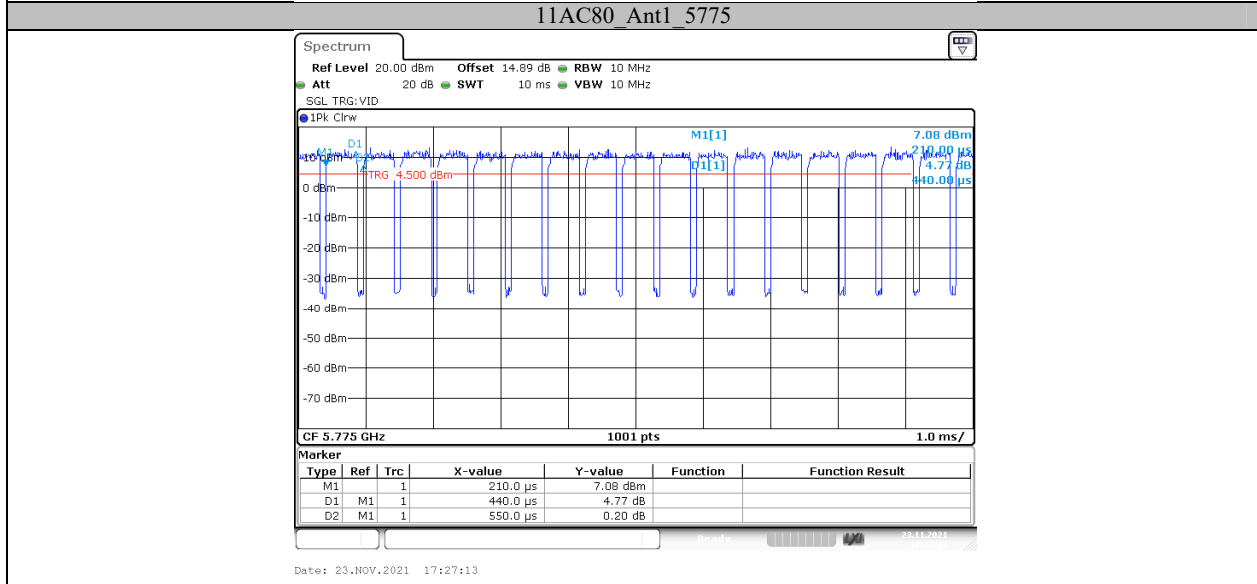
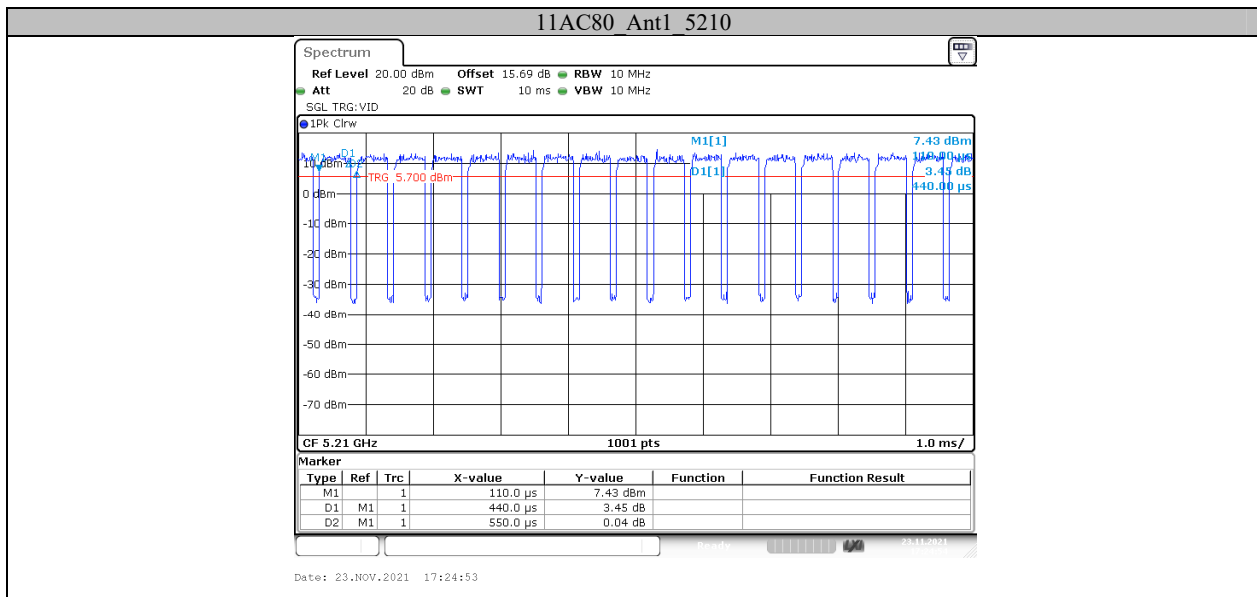












***** END OF REPORT *****